

34 OF THE YEAR'S BEST MAC PRODUCTS



WE'VE PICKED THE WINNERS OF OUR 20TH ANNUAL EDITORS' CHOICE AWARDS, p. 71

Macworld

www.macworld.com | February 2005

The Mac Product Experts

MAC MAINTENANCE GUIDE

PREVENT MAC DISASTERS

8 Simple Ways to Keep Your Mac Happy and Healthy





iPod Photo

Reviewed and Rated, p. 26

Inside the New Player, p. 80



HOT NEW PRINTERS

WORKING MAC USE YOUR MAC TO MAKE PHONE CALLS

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"Quite possibly the coolest personal computer yet created. Apple's latest computer is as cool and sleek as its best-selling music player..."

– ***Chris Taylor***, Time

"5-out-of-5 rating. Simple, stunning all-in-one design. With the iMac G5, Apple has given Mac fans yet another reason to stay in the fold. And its unparalleled execution should attract would-be Windows PC buyers as well." – ***Joel Santo Domingo***, PC Magazine

"The new G5 iMac is the finest personal computer I've ever used, hands down. Nothing comes close. If you have ever thought of switching from a Windows-based PC to a Mac, this is the deal-clincher. It is simply a stunning machine both to look at and to use."

– ***Mike Wendland***, Detroit Free Press

"I'm writing these words on the most elegant desktop computer I've ever used, a computer that is not only uncommonly beautiful but fast and powerful, virus-free and surprisingly affordable."

– ***Walt Mossberg***, The Wall Street Journal

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http://cd.macworld.com/2005/02/baby-carrot



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Image by Joe Zeff

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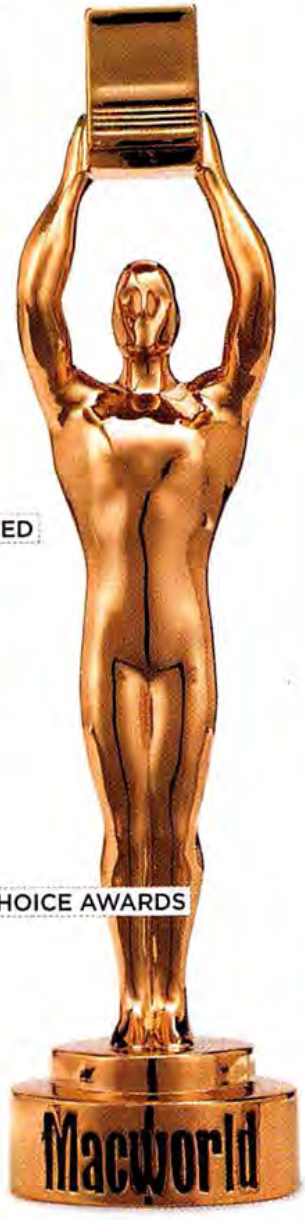
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Check out our editors' favorite developments of the month.

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Do Your Chores

The last thing I want to do on a California winter weekend is rake leaves and clean out rain gutters. Yet it's an inevitable part of my life as a homeowner: either I do my chores or our house turns into a leaking, rotting hovel surrounded by moldy leaves and sprouting mushrooms.

If you aren't a homeowner, you may be spared from raking leaves. But if you own a Mac, you do have some chores to do. No, your Mac may not explode if you don't take care of it (despite this issue's fantastic cover image by Joe Zeff—see "About This *Macworld*"). But you could lose data, productivity, or both. By taking a little time now for some routine maintenance, you can avoid wasting lots of time later staring at that spinning beach-ball icon.

Clean Your Room

As an editor, I'm always hesitant to publish stories like "Prevent Mac Disasters" (page 62). They make me feel like I'm telling you to floss your teeth and clean your room. But when we recently asked a panel of *Macworld* readers to pick their favorites from a list of more than a dozen story ideas, *Mac maintenance* won by a solid margin.

Perhaps that's because even now, several years after OS X arrived, plenty of Mac users are still concerned about all the mysterious stuff going on behind the scenes of their computers. The fact is, while OS X is a fantastic operating system, it's also a complicated, weird beast. And although it comes with a bunch of useful self-maintenance routines that you should take advantage of, those routines alone aren't enough.

That's why we commissioned Contributing Editor Rob Griffiths to lead our efforts to give you the plain, simple facts about what you need to do to keep your Mac humming along from day to day. No, our advice may not be sexy—but it's good for you.

Hello Again, Eddy

Every year at this time, we hand out our Editors' Choice Awards (page 71). This is the 20th consecutive year our editors have scoured the market to pick the most-innovative products introduced for the Mac over the past 12 months. And this year, we whittled the list down to just 34.

As usual, plenty of big companies walk off with a coveted Eddy statuette. But so do a bunch of underdogs—small, up-and-coming developers that work on a shoestring (Rogue Amoeba, developers of Nicecast, for example) and that fill a niche or come up with a remarkable innovation the big companies have missed.

We brought back something this year that we haven't done since the mid-1990s: Readers' Choice Awards, one for hardware and one for software. To determine those winners, we polled readers on Macworld.com, as well as members of our private reader panel. These sources agreed on the two winners (both from Apple).

This is the 11th year I've spent some serious quality time with Eddy. When I first met him, we were awarding a company run by Steve Jobs—but it was Pixar, maker of 1994 Eddy winner Typestry 2.1. We also awarded a new Mac desktop back then, but it was the 6100/60 Power Mac. And comparing the games of 2004 to those of 1994 reminded me that no matter the decade, my Mac can still be a great time waster: I honestly can't figure out if I've spent more personal time playing this year's Halo: Combat Evolved or 1994 Eddy winner SimCity 2000.

Playing either one, however, beats spending time raking leaves and cleaning out rain gutters on a chilly Sunday. □

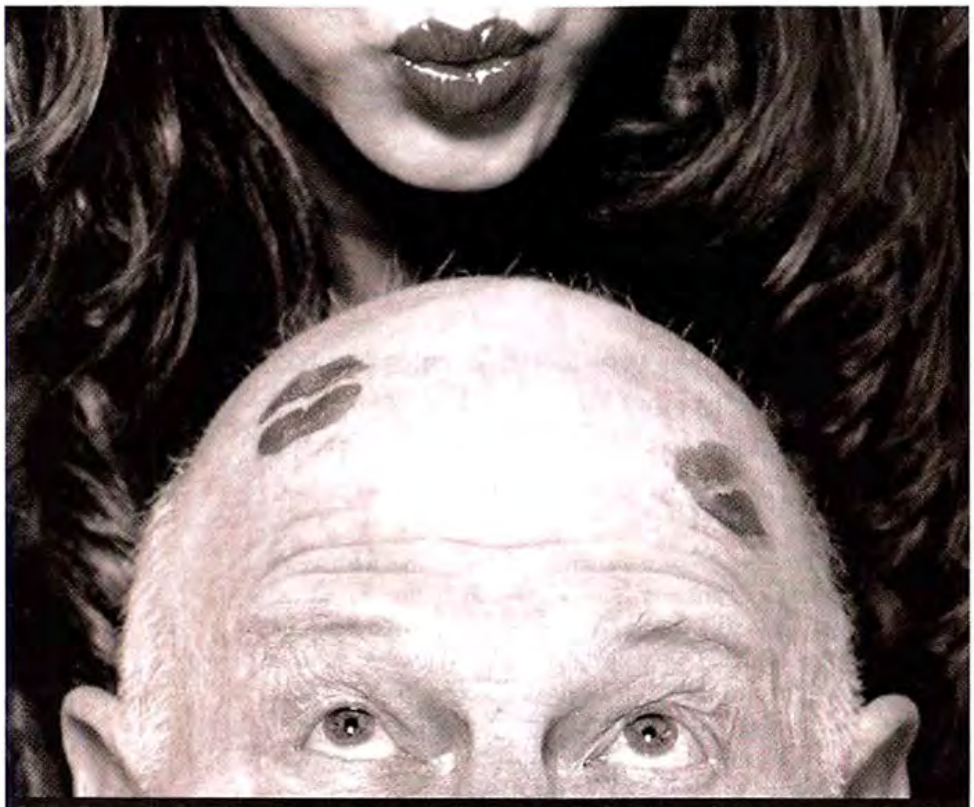
Have you taken care of your Mac chores today? (This week? This month? This year?) What were your favorite products of the year? Let me know at jason_snell@macworld.com or at www.macworld.com/forums.

About This Macworld

Back in January of 2002, our cover showed a Power Mac G3 being squashed by a PowerBook. Outraged readers wrote in, taking us to task for destroying a perfectly good computer. We had to inform them that we hadn't actually squashed a Mac—the image was an illustration. So before you fire up your e-mail clients, let us assure you that no Macs were harmed in the production of this issue's cover. The burned-out, beat-up desktop you see was the creation of Joe Zeff, an illustrator who's done covers for *Time*, *Newsweek*, *Esquire*, and other worthy mags. He built the image from scratch, using NewTek's LightWave 3D running on his very own dual-processor G5—which also doubled as his model.



PORTRAIT BY PETER BELANGER



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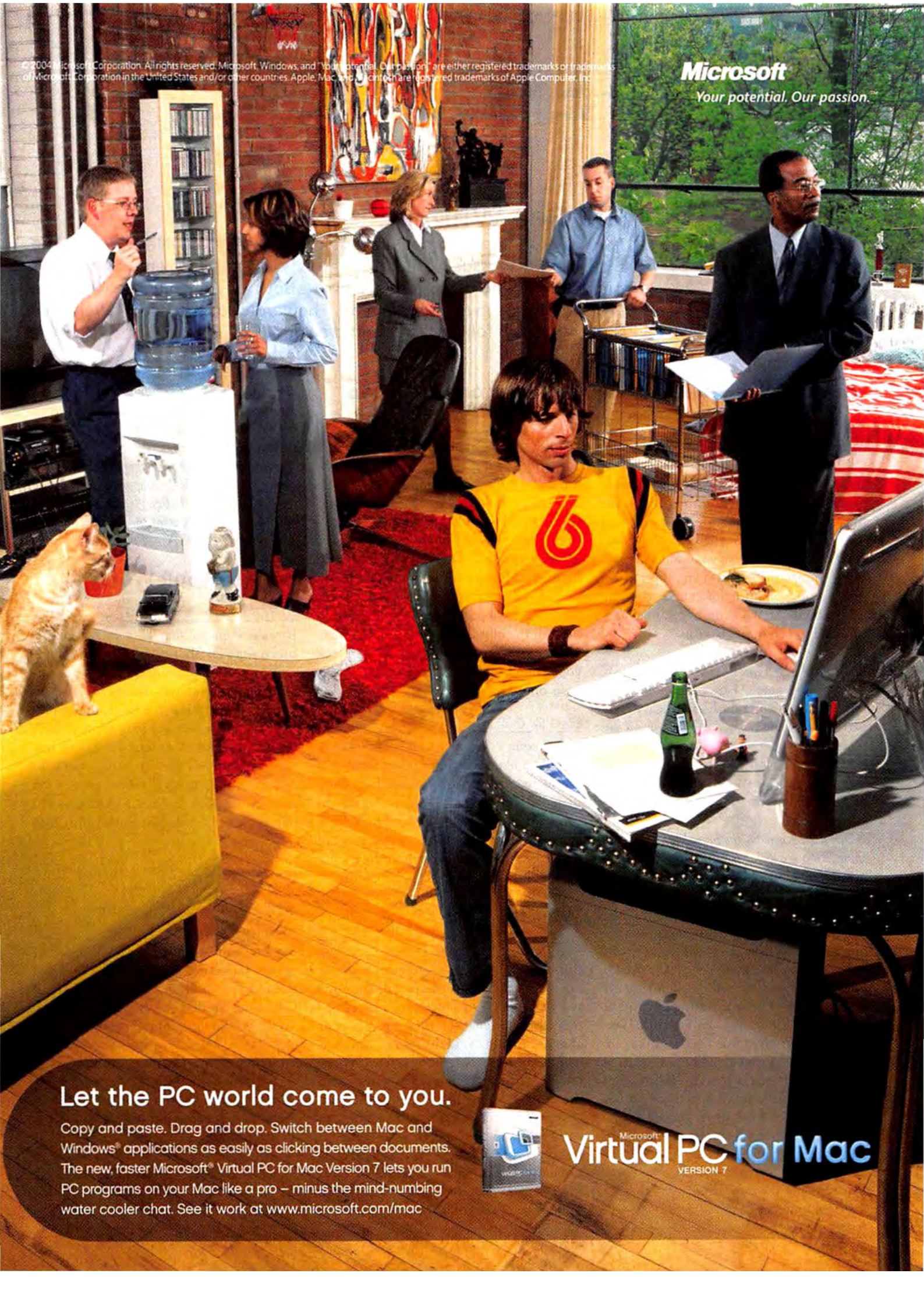
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FEEDBACK

G5? Gee Whiz!

It was no surprise that our first look at Apple's new iMac G5 was the November 2004 issue's top letter getter. We received plenty of missives from readers who were just thinking about buying one, as well as a bunch from those who already had. The verdict of the latter? Well, let's just say that you folks are a tough crowd.

iMac G5, Your Take

MARK ST. JOHN

My initial impression of the iMac G5 ("iMac G5," November 2004) is that it could be the affordable, full-power Apple portable for those of us who need to take our computers along for the occasional week at Grandma's or the beach. Twenty-five pounds is a bit heavy but not that bad. Why endure the expense and limitations of a laptop (assuming, of course, that the iMac could survive being stuck in a suitcase and tossed in the trunk)?

GINI McKELLAR

Though the new iMacs are very elegant, they're also dangerously top-heavy. My two-year-old son pushed the bottom of the monitor in, and it almost toppled on top of him. Good thing my husband was there. If we're going to keep this machine, we'll have to strap the bottom to the desk for safety.

When we checked out the new iMac, one of the first things we did was give it the tip test. It seemed quite stable to us.—Ed.

CATHERINE LUCAS

We live in the United Kingdom, but my husband is American, so we bought the new iMac in the States. When it arrived, I plugged it in—and nothing happened. I called the store where we bought it, but they couldn't help me. So I hit the Net, where my problem was nicely explained. Turns out the power supplies in iMac G5s sold in the United States and Japan don't have automatic voltage switches. Our old iBook and iMac both work under all voltages. Why shouldn't newer machines do the same? Apple, get your act together and put auto-voltage switches in every Mac. People do move and want to take their computers along.

Software on the Cheap

IAN BECK

I really enjoyed your article about low-cost and free utilities ("Even More Software Bargains," November 2004). You missed a couple that I use every day and that really deserve a mention. A-Dock X (free; find.macworld.com/0184) is an awesome, expanded Dock, complete with themes and more cool abilities than you can shake a stick at. DeskShade Plus (find.macworld.com/0185) allows you to hide all the clutter on your desktop, play a movie as your desktop picture, and lock your computer while you're away, and it costs only $7.

STEPHEN CHAKWIN

I liked your write-up of Genius 1.5 (★★★★). It looked like something potentially very useful to me, so I downloaded it. Only then did I learn that it requires Panther to run. Jaguar, which I still use, won't do it. It would be helpful if your writers would mention things like this when they write up applications.

Whither OS 9.X?

WARREN POTAS

Annoyingly, *Macworld*'s relevance to the mass of Mac users who are still committed to the OS 9.X platform has essentially evaporated. The final straw is your abandonment of identifying Mac OS compatibility in software reviews. Without identifying which software sells to the OS 9.X legacy market, your software coverage becomes irrelevant verbiage to us. I've been staring at your renewal notice, trying to find some reason to continue my 12-year subscription. With this final slap at legacy Mac users, you've tipped the decision.

We decided to drop OS compatibility from the information boxes in our Reviews *section because the vast majority of the products we review today work only with OS X. While some products can be coaxed into working with OS 9, many are not officially supported, so we can't verify OS 9 compatibility. As you rightly point out,* Macworld*'s focus for the past several years has been on Mac OS X.—Ed.*

Ups for AppleWorks

JOHN HUNLEY

It really bugs me that *Macworld* spends so much time on Microsoft "Bloated" Office and so little time on AppleWorks. I consider myself an above-average Office user, and the only thing I miss using AppleWorks is a few features in the spreadsheet (especially the way it merges cells). I'd like to see *Macworld* devote more space to AppleWorks. I think if more people used it, they'd never go back to Office—and maybe Apple would put some effort into upgrading it.

iRobot

MATT KAMBIC, CARNEGIE MELLON UNIVERSITY ROBOTICS ACADEMY

Excellent article on Lego MindStorms robots (*Geek Factor*, November 2004). I wanted to draw your readers' attention to Carnegie Mellon's Robotics Academy. We help students and interested "roboticists" of all ages tap into the fun and excitement of learning and playing with robots, in part by creating content for Lego robots. For more information, please visit www.rec.ri.cmu.edu/education/.

Note that Lego recently announced an OS X version of its easy-to-use Robolab 2.5.4 software.—Ed.

Top iTunes Tips

DAVID DAIGLER

I've got lots of iTunes playlists and have wasted tons of time scanning through them to see if a given song is on one of them. Jim Heid's trick (*Digital Hub*, November 2004)—control-click on a song name to see which playlists it's on—is going to save me lots of time. That one tip is more than worth *Macworld*'s subscription price.

Eagle-Eyed Readers

DOROTHY ROSA HUNT

Shopping for a printer, I first checked *Macworld*'s reviews and then moved on to Amazon.com. As you can see from the screenshot (shown below), the site's recommendation engine somehow deduced that I should buy the HP OfficeJet 5510. Why? Because I'd once purchased a Black & Decker HS2000 steamer and rice cooker.



CHRIS TROTT

I had to laugh as I browsed November's *Macworld*. If you look at the advertisements for Microsoft Office on pages 32 and 33, the initials of the four apps included in the suite just happen to spell *P E W X*. Is Microsoft trying to tell us something we don't already know?

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CORRECTIONS

In December 2004's *Hot Stuff*, we gave the wrong price for PhotoStamps. They cost "nearly 48 cents per stamp" *in addition* to the price of regular stamps. (PhotoStamps are currently unavailable.)

Also in December's *Hot Stuff*, we gave the wrong price for Painter IX. It costs $429 (upgrade, $229).

The Webcam 352 ("*Macworld*'s Gear Guide," December 2004) doesn't support Macs.



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It's a Take

For film makers and other creative professionals, FileMaker Pro gets two thumbs up.

Everyone knows creative professionals are endowed with great "right brain" potential. That's allegedly the creative lobe in our heads, and it is the side creative people like to exploit and use.

Similarly, creative people don't like to get bogged down in unnecessary details like administrative chores. However, administrative tasks, such as keeping track of complex creative projects, are a fact of life in today's world. Perhaps that is why more than 100,000 creative professionals turn happily to FileMaker Pro to help them create order from what otherwise could be the chaos of details, and do so easily and quickly to free up time for what they really long to do—let the creative juices flow. In a world of complex file types, creative professionals have come to embrace FileMaker's uncanny ability to tame rich data sources, including video files, audio files, and images.

Movie hero

As a film editor for some of Hollywood's biggest hits, Dylan Tichenor lives in a world of dizzying details. Included in the Los Angeles-based editor's film credits are *The Royal Tenenbaums, Magnolia,* and the soon-to-be-released *Brokeback Mountain.*

For Tichenor, to assemble a reel of film for a two-hour movie involves miles of tape that includes countless takes of hundreds of scenes, many with special music, special effects, special lighting, and so on. Tichenor relies on FileMaker Pro 7 to keep track of all this and a lot more to help shave precious time off the film-editing process. "I frankly couldn't get along without FileMaker Pro," Tichenor says. "There is just too much information to track, and FileMaker gets the job done easily."

Tichenor started working with FileMaker several years ago "just to organize simple lists and other things like that." But soon he had harnessed FileMaker's power, flexibility, and intuitive ease of use to organize and keep track of the single most critical part of a film editor's life: the codebook. This is a relational record of literally every detail involved in making a film—notes on shoot dates, visual effects, music, JPEG frames from individual scenes to help identify them, and so on.

Powerful and intuitive

"A single movie can easily generate 5,000 records or more," Tichenor says. "We connect other relational databases with our codebook to generate all sorts



of reports or to extract information we need immediately, such as a specific take from a specific scene we want to cut into the final reel. We use FileMaker Pro for billing as well. It's outstanding."

Tichenor says he sticks with FileMaker Pro because it is powerful yet very intuitive at the same time. He notes that the graphical front end of his FileMaker Pro database is often accessed and used by other crew members during the editing process. "People with little or no database experience can pick it up and work with it, no sweat. It's that easy, but it's also powerful."

Jason Gaudio works closely with Tichenor on big projects, keeping the codebook up to date and pressing FileMaker Pro 7 into service on a daily basis. Gaudio has been using FileMaker Pro for eight years, initially to help him manage all the data that ends up on the cutting-room floor but which at any

time could be used in the final editing.

What does he like most about FileMaker Pro 7? "For me, it has to be the flexibility," Gaudio says. "Each film that I work on is unique. Data and layouts need to be flexible and comprehensive, and FileMaker Pro's architecture fills those needs while being intuitive to use at the same time. For me, the way it works just makes sense."



With FileMaker, creative professionals can track any type of information, including text, numbers, pictures, movies, sounds, and more, and with a database that is virtually unlimited in size.

Keeping SpongeBob organized

Just a few miles from Tichenor's home office is Glendale, Calif.-based Peanut Worm Productions, known throughout the film world as the producers of last year's smash hit *The SpongeBob SquarePants Movie*, based on the cartoon superstar. For the Peanut Worm staff and crew, FileMaker Pro offered immediate benefits during the actual film production as well as continuing benefits, since the business rules and procedures built around the FileMaker Pro database save Peanut Worm from having to essentially "reinvent" procedures for the next film project.

FileMaker Pro has proven indispensable for tracking production processes that must be documented throughout the highly complex task of filming and editing an animated movie. According to the Peanut Worm team, FileMaker Pro permits rapid and easy customization without ever compromising its trademark ease of use. Also, the built-in enhanced security features in FileMaker Pro 7 help the Peanut Worm team give the right access to the right data to the right users—and only the right users.

The original system devised for the SpongeBob project consisted of 45 FileMaker Pro databases, documenting the progress of the many different phases of the production. "We're tracking what all those various pieces of the production are," notes Katherine Simpson, Peanut Worm's database developer. "Also, from the standpoint of the individual department, we've got users who can track their footage quotas—the amount of footage actually completed by each department in a given week. Everything's based on the model of inventory that flows through a manufacturing pipeline."

"Remarkable flexibility"

The database also displays remarkable flexibility, coupled with FileMaker Pro's customary ease of use. "The cool thing about the database is that it's for the most part completely customizable to different production pipelines, and that's something I think is unique," adds Aaron Perry, line producer. "Many times you find that databases are very rigid, but with FileMaker Pro we found an incredible amount of flexibility. At the same time, we were able to integrate into the system a lot of coordinators and managers who didn't have a lot of high end-user capability."

Flush from the great success that Peanut Worm achieved with FileMaker while producing the SpongeBob movie, technical director David Krause is already looking forward to using the system in future projects. "The goal for the build in FileMaker Pro 7 is for it to support a central repository at some point in time for several pictures," he predicts, "so that not only could production have access to the information but also the studios involved, instead of having to have elaborate preparations offline."

Great free offer

To help creative professionals, FileMaker has recently released the FileMaker Creative Pro Starter Kit, which is a free download when you download a 30-day trial of FileMaker Pro 7. This ready-to-use kit comes with pre-programmed, customizable solutions designed specifically for the creative market—managing contact details for clients and vendors, tracking job status from proposal through delivery, creating digital libraries that store images, sounds, and video clips, printing invoices, labels, and reports, and more.



To download the free FileMaker Creative Pro Starter Kit, and to find out more about what FileMaker can do to drive productivity for creative professionals, click now on **www.filemakertrial.com/macworld/.**

SOFTWARE UPDATE KEEPS YOUR SOFTWARE FRESH

Getting Better All the Time

Chances are pretty good that within a week or two of reading this story, you have seen (or will see) Mac OS X's Software Update window pop up to tell you, "New software is available for your computer." In response, you've probably either clicked on the Install button and hoped for the best, or avoided clicking on the button out of fear of the unknown. What really happens when you install an update?



The good news is that these updates are designed to provide improvements in functionality, stability, or security (or some combination of the three). The bad news is that with millions of Macs in the wild, configurations vary, and sometimes updates unintentionally cause problems (see "4 Things to Remember When Updating" for tips on avoiding potential problems).

Apple is continually fixing bugs, patching holes, and adding features to OS X—and Software Update is the easiest way to implement those changes (for a sampling of some important updates, see "Ubiquitous Updates"). It's a big part of OS X, so understanding what Software Update does and what's in an update can help you overcome your fears—or at least give you peace of mind that clicking on the Install button is usually the right thing to do.

Roughly speaking, updates provided by Software Update fall into one of three categories:

> **Application and hardware updates:** An application update fixes problems with or adds functionality to a particular Apple application—such as iTunes, iPhoto, or iSync—by modifying or replacing that application and, possibly, various support files. An application update typically changes the version number of the affected application (for example, bumping iTunes from version 4.6 to 4.7) but does not affect the version of OS X itself. Firmware updates to the iPod and AirPort Base Stations are treated this way, too.

> **Security updates:** A security update plugs potential security holes in the OS by modifying or replacing specific files contributing to the vulnerability. Sometimes these holes are publicly acknowledged; other times only Apple knows about them. (You can read more about OS X security updates at find.macworld.com/0231.) A security update is usually named Security Update followed by the year, month, and day, and it generally does not affect the version number of OS X. But it may change application versions slightly (for example, Safari 1.2.4 [v125.11] to 1.2.4 [v125.12]).

> **Mac OS X updates:** An update to OS X is a way for Apple to roll out fixes for a smattering of problems with the operating system itself, as well as to

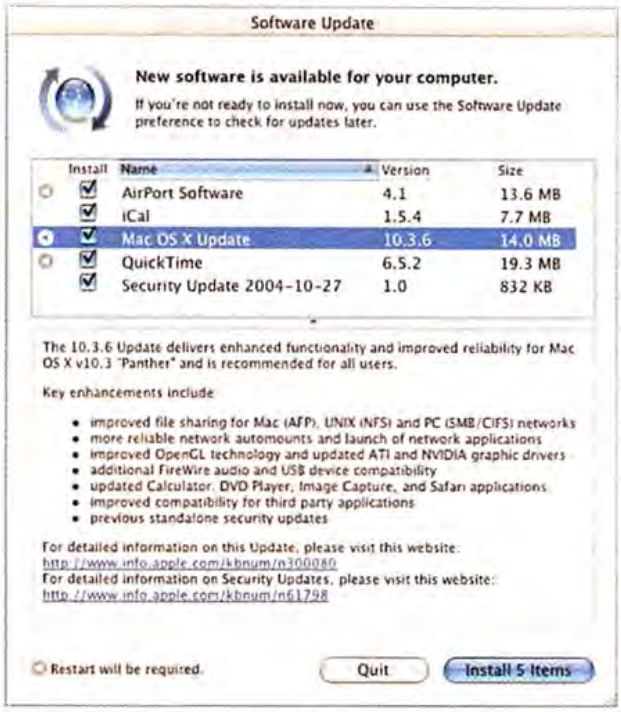
4 Things to Remember When Updating

> **Make sure your hard drive is in good shape.** Boot from another drive or use your OS X Installer CD or DVD, and then run Disk Utility's Repair Disk Permissions feature. You can also use a third-party utility such as Alsoft's DiskWarrior (www.alsoft.com).

> **Back up.** It's rare that an update will result in a loss of data, but it has happened. A few years back, an iTunes installer had a bug that erased some users' hard drives. Be safe, not sorry.

> **Take it slow.** Although you may be tempted to install every update immediately, sometimes it's better to be patient. When an update is released, consider holding off for a few days and keeping an eye on Web sites such as MacFixIt.com (full disclosure—I work there, too) and MacInTouch.com, to see if other people experience problems.

> **Repair disk permissions.** After you've finished installing and restarted your Mac (if necessary), run Disk Utility's Repair Disk Permission function on the updated drive to make sure all system files have the correct privileges. (If you're a power user who's changed permissions on system-level files, you may want to skip this step, or at least make a note to change back those settings afterwards.)



Helping Hand Software Update keeps your Mac running smoothly.

add minor features and functionality all at once. OS X updates are named Mac OS X *version* Update; installing one will change the version number of the entire OS (for example, from Mac OS X 10.3.6 to 10.3.7) and, if applications are also updated, will change the version number of those applications. (Note that an OS update is, by definition, a minor update to a specific major version of OS X; it won't upgrade you from Panther to Tiger.)

Software Update makes updating your Mac easy, but you can install such updates yourself by downloading them from Apple's Web site (www.apple.com/support/downloads/) and then double-clicking on the update package, which will launch the Installer utility. Even though you can download uninstalled updates via Software Update—and keep a copy of the update handily backed up in case you ever need to reinstall OS X and don't want to have to redownload the file—doing so from the Web offers some advantages. First, for OS X updates, Apple often provides *Combo* versions of the downloadable packages, which incorporate all OS X updates into one package. (For example, all the changes in 10.3.1, 10.3.2, and so on, all the way up to 10.3.7, will be contained in the 10.3.7 Combo Update.) Some users report fewer problems with these Combo updates—which don't always show up in Software Update—and they certainly make it easier to bring OS X up-to-speed if you ever need to reinstall. Also, installing updates manually lets you see what's going to be installed, as explained below.

What's in an Update?

Unfortunately, it's often difficult to tell exactly what you're installing. Apple does always include some sort of description of the improvements and fixes an update provides—visible in the Software Update window or, if you download an update and then install it manually, on Apple's Web page for the download or on the Installer utility's information screen. But this information is usually vague and often nearly useless. What exactly does "improves system stability for your Power Mac G5" mean (the entire change note from a recent firmware update)?

Sometimes Apple provides more-detailed information about an update on its Web site; for example, the company posted details about the Mac OS X 10.3.6 Update (see find.macworld.com/0232). However, more often than not, you'll have to make do with the shorter version (such as the one at find.macworld.com/0233).

If you'd like to see exactly what an update will install, you need to manually download the update from Apple's Downloads page instead of using Software Update. You can then install the update package and use either the Installer utility's Show Files command (in the Installer menu) or, better yet, a utility like Pacifist (★★★★½; April 2004; www.charlessoft.com), to view the files to be installed.

You may have noticed that Apple often releases major updates late on Friday afternoons. Although the company might argue that such updates are just being released after a long week of hard work, some people outside the company suspect that the real reason is to reduce any bad press that might result if significant problems are discovered with the updates. Regardless of which theory is correct, it's generally a good idea to hold off a few days before installing—let others install the new software first, and then see what the reaction is around the Net. The one exception is with Security Updates: if your computer is connected to the Internet, then it's a good idea to install Security Updates right away, as they patch holes in the OS that could be used by a malicious hacker to break into your Mac.—DAN FRAKES

Ubiquitous Updates

To give you an example of what updates do, here are a few that made noticeable changes to the way you work or what you can do:

> **Mac OS X 10.3.3 Update:** By requiring authentication for each administrative action, reduced the chances of accidental (or deliberate) damage to the OS after the user's account is authenticated in the Finder. *Translation: Typing your admin password once doesn't mean someone can trash your system files willy-nilly.*

> **Security Update 2004-06-07:** Fixed a vulnerability in OS X by requiring a user to authorize the first time an application is opened, via double-clicking on a specific type of document. *Translation: Keeps you from accidentally triggering a malicious app that, say, eats your user folder.*



> **iTunes 4:** Added interface for connecting to the new iTunes Music Store, for sharing music on a local network, and for AAC encoding and playback. *Translation: Click on a button, download music, and spend money—all without leaving iTunes.*

> **iSync 1.5:** Added support for more devices, including the latest Motorola and Sony Ericsson phones. *Translation: Your cool new T637 can sync with your Mac via Bluetooth.*

> **Java Update 1.4.2 Update 2:** Improved behavior for applets in Safari and stability for desktop Java apps. *Translation: Safari is no longer a second-class citizen when it meets applet-laden pages.*

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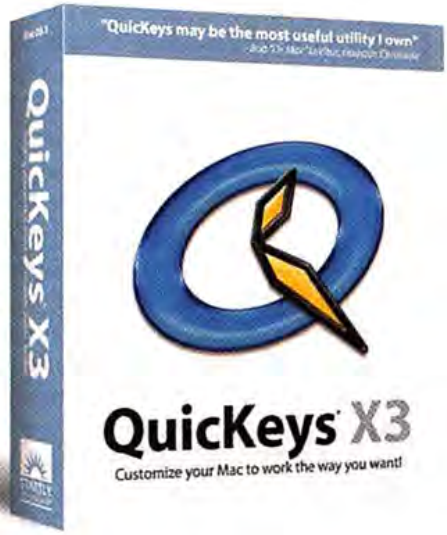
Wrist Saver

Typing the same string of text, drilling down into submenus, or even accessing complicated keyboard commands throughout the day is not only tedious and time-consuming—it can also contribute to potentially debilitating strain injuries.

One way to improve productivity and save ailing limbs is by using shortcuts (also known as macros) that quickly take care of repetitive actions and multistep tasks. With the latest version of QuicKeys, Startly Technologies (formerly CE Software) has added many features to its automation utility for OS X, which allows you to create shortcuts manually or with its record function.

QuicKeys X3 (www.quickeys.com) features a redesigned user interface that allows you to see all your shortcut steps at once, as well as edit multiple steps at once. You can also drag and drop steps among shortcuts.

The new version also adds several triggers for launching shortcuts. Application Event runs a shortcut based on application actions such as launching, quitting, or bringing to the front; Device allows you to assign shortcuts to specific input-device buttons; and Speech lets you speak a unique phrase into a headset or microphone to activate a shortcut.



While previous versions of QuicKeys let you share shortcuts with others via import and export functions, QuicKeys X3 adds Public Shortcuts—a feature that lets administrators publish shortcuts for networked users. Any changes to the main shortcut list will be made each time you launch QuicKeys.

Other improvements include the ability to save shortcuts as files, which you can place in and launch from toolbars or the Dock; better recording and playback features for creating shortcuts; more-precise control over the scope of each shortcut with individual applications; and the ability to use variables and simple equations in shortcuts.

QuicKeys X3 costs $100, with upgrades running between $30 and $50, depending on your current version, and it's available now.—JONATHAN SEFF

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MACWORLD'S FIFTH ANNUAL LOOK AT THE YEAR AHEAD IN MACS

Fortune Tellers

It's once again time for *Macworld* to predict what the near future holds for the Macintosh world. This year, we've tapped Contributing Editors Christopher Breen and Adam C. Engst, as well as Senior Writer Dan Frakes, to peer beyond the horizon at what tomorrow may bring. And this time around, we have forecasts from readers' posts on the Macworld.com forums. If even half of these predictions come true, it's going to be a very cool year.—JONATHAN SEFF

2005's Most Significant New Product

Breen: It's clear that the most-significant doings at Apple are coming from the digital music division. Variations on the iPod—both smaller, in the form of inexpensive iPods, and grander, in the form of color-screen and unwired iPods (Bluetooth and maybe even 802.11)—will be big news and keep the dollars flowing into Apple's coffers (and ensure Apple's domination of the digital music market).

Engst: An iPod-like, touch-screen–based, tablet-size Mac that can morph into a more traditional laptop shape for typing. It will be the ultimate home computer, enabling you to watch video, play music, browse the Web, keep track of your personal calendar and contacts, and much more.

Frakes: New iPod products that extend Apple's consumer-electronics reach—a flash-memory–based iPod and an iPod with wireless connectivity.

2005's Most Significant New Software

Breen: Given that major Mac OS upgrades drive development of other applications, Tiger (Mac OS X 10.4) will be the most significant software for the Mac. However, if you're talking about the most significant program from Apple, it's likely to be a future iteration of iTunes.

Engst: I said it last year, and I'll stick to it. It darn well better be Mac OS X 10.4 this time. If not, Apple will have some explaining to do.

Frakes: Tiger—better than Longhorn and a year earlier! Also, a new or updated office suite from Apple and a version of the iTunes Music Store that lets you download video.

WHEN WILL IT HAPPEN?

These questions are on everyone's minds—what do our experts think?

When will Tiger be out?

Breen: Spring 2005.

Engst: I'd say the end of March, but since Apple always releases new versions of OS X on Friday nights, that would mean April 1, and there's no way it'll release Tiger on April Fools' Day. So I'm going with March 25th, 2005.

Frakes: Either in March 2005 or at the Worldwide Developers Conference (WWDC) a few months later.

When will Apple release a 3GHz Power Mac?

Breen: Fall 2005.

Engst: June 2005.

Frakes: March 2005.

Will there be a G5 PowerBook in 2005?

Breen: Yes, in the summer, before the WWDC.

Engst: Yes.

Frakes: Definitely, although I think we'll see at least one more G4-based revision first.



2005's Biggest Mac News

Breen: Faster G5 processors will find their way into all Mac models.

Engst: The iTunes Music Store will incorporate streaming subscriptions to cement its position as the top online music service.

Frakes: An increasing number of consumers will switch to the Mac due to frustration with Windows viruses and malware.

READERS WEIGH IN

Ten predictions from the Macworld.com forums:

1. PowerBook G5s
2. Low-priced, flash-based iPods
3. 3GHz-plus Power Macs
4. Improved AppleWorks to replace Microsoft Office
5. Digital-hub hardware
6. Sony-branded iPods
7. Apple settles with the Beatles; the iTunes Music Store gets exclusive distribution
8. Dual-processor iMacs; quad-processor Power Macs and Xserves
9. Video iPods
10. More Apple Stores (mostly "mini" stores)

How'd They Do?

How accurate were last year's predictions? Let's take a look.

We've Got a Winner! · On the Right Track. · Thanks for Playing. Try Again.

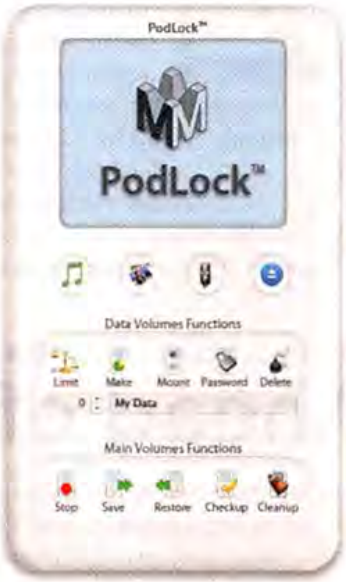
Christopher Breen, *Contributing Editor*	Adam C. Engst, *Contributing Editor*	Ed Rose, *Programmer and Astrologer*	Sdiane Adamz-Bogus *Mac-using Psychic*
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How many times have you tried to attach a short movie or a file archive to an e-mail only to find that the intended recipient's ISP won't accept large attachments? If you're anything like me, it has happened too often.

Enter Dropload (www.dropload.com), a Web site designed to make transferring large files over the Internet a snap. Dropload works like a temporary, one-time Web server, holding files just long enough for someone else to come pick them up. Simply upload a file or files (as large as 100MB) using Dropload's Web-based interface, and the site notifies your intended recipient via e-mail. Once that person downloads the file, it's deleted from Dropload's server. The best part is that it's free.



Short-Term Memory Web sites like Dropload provide temporary storage for large files.

The site is the creation of Andre Torrez and Jon Thompson. Torrez, a programmer from Long Beach, California, came up with the idea after having to upload a file to his server, e-mail the URL to a friend, and then delete the file once his friend had picked it up.

"It's sort of like a giant online thumbdrive," says Torrez. "People are still at the mercy of bandwidth and storage. For some reason, a 10MB file is still considered too large for normal channels like e-mail and instant messaging."

Dropload was launched last year, and there are now more than 72,000 registered users sending between 3,000 and 4,000 files across its servers every day. Similar sites, such as YouSendIt (www.yousendit.com) and SendThisFile (www.sendthisfile.com), have sprung up to accomplish the same task. Some offer more storage, multiple downloads of the same file, and pay services.

"I think the success of Dropload points out a failure in modern operating systems," says Torrez. "There really is no reliable way to get a large file off your computer without involving FTP and Web-server space, or burning it to CD and mailing it." Or, at least, there wasn't a way until now.—MATHEW HONAN

MAC DVD CREATOR WORKS BEFORE MOVIE IS DONE

Ahead of the Game

MACS AT WORK

Given their complexity and breadth of scope, typical special-edition DVD releases often begin production well before their movie counterparts are complete. The head start gives DVD producers time to shoot and assemble bonus materials so the disc will be ready for store shelves several months after the movie opens in theaters. It shouldn't be a surprise, then, that DVD producer Robert Meyer Burnett, a self-described "Mac boy all the way" since 1984, has been visiting the set of *The Chronicles of Narnia: The Lion, the Witch, and the Wardrobe* in New Zealand, even though the film won't be released until December 2005.

Burnett's New Zealand setup is "Mac'd out," complete with AirPort wireless networking covering a set the size of two football fields, a Cinema Display for the director of photography to check color balance, and even an iSight camera for the second unit director to use when showing director Andrew Adamson the progress of his shots. Burnett can even show his employees at Ludovico Technique in Los Angeles what's happening on the set, including impromptu conversations with the cast and crew.

"I have Avid Xpress Pro [and Adobe] After Effects, Illustrator, and Photoshop loaded in my PowerBook," says Burnett, who knew many of the Narnia crew from his work on the Extended Edition DVD sets for *Lord of the Rings: The Fellowship of the Ring* and *The Two Towers*. "I can shoot stuff and dump it into the laptop for editing right there on the set. It's a one-stop shop—I can start and finish all the content for a DVD on [my] Mac."—BRAD COOK

NETWORKING BEAT

11b USB Stick, from MacWireless (www.macwireless.com): Wireless USB interface attaches to a Mac's USB port and includes a 7.5-inch flex extension for boosting wireless reception ($80).

Broadband Router, from MacWireless (www.macwireless.com): Router features a built-in four-port 10/100baseT Ethernet switch and a WAN port for connecting to a DSL modem, a cable modem, or another broadband interface ($50).

Dave 5.1, from Thursby Software (www.thursby.com): PC-to-Mac file and print sharing program adds support for the latest Mac and Windows operating systems, as well as support for user drop boxes and symbolic links (pricing starts at $119, based on licenses).

Keyspan Express Remote, from Keyspan (www.keyspan.com): Infrared remote control can connect to AirPort Express networks ($60).—COMPILED BY PHILIP MICHAELS

PRODUCTIVITY BEAT

4-Sight Fax 6.0, from Soft Solutions (www.4sightfax.com): OS X fax server software boasts a big speed improvement and adds automatic fax notification and support for Address Book (contact Soft Solutions for pricing).

ABDialer 2, from Macron Software (www.macronsoft.com): Phone dialer for OS X's Address Book has a new interface, as well as a global menu, dial scheduling with iCal, and Short Message Service support through iChat and AIM ($12).

Delicious Library, from Delicious Monster (www.delicious-monster.com): Electronic card-catalog application lets users track books, movies, music, and video games that they own ($40).

StickyBrain 3.1, from Chronos (www.chronosnet.com): Note manager has a new interface modeled after Mail and featuring Safari-style tabbed notes; it can also sync with iPods ($40; upgrade, $25).—COMPILED BY PHILIP MICHAELS

BEAT ICONS BY PAUL HOWALT

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WHY STOP WITH U2? iPOD TIE-IN OPPORTUNITIES ABOUND

Isn't That Special?



It was quite a sight last fall, seeing rock star Bono share a stage with rock-star-of-the-tech-world Steve Jobs, as the two unveiled Apple's iPod U2 Special Edition. The $349 20GB model with a black case and a red Click Wheel may bear U2's name (as well as the band members' signatures, laser-etched on the back of the device), but it isn't hard to imagine other Special Edition iPods coming soon to a retailer near you. In fact, with our understanding of the inner workings of Apple, our connections within the tech industry, and our powers of outright fabrication, we have a pretty good idea of the iPod SE models that will come your way in 2005. So start saving your pennies now—who knows how soon these gems will be out.—PHILIP MICHAELS

A Pod for the Rest of Them

The Ashlee Simpson iPod	40GB iPod comes loaded with all of the younger Simpson's songs, but each one is sung by other people.
The Artist-Formerly-and-Once-Again-Known-as-Prince iPod	All-purple music player is identified only by an unpronounceable symbol. Ask for it by name!
The New York Yankees iPod	At $699, this pinstriped model is the most expensive of all iPods. Unfortunately, when playing a series of songs in a playlist, it has problems finishing the last song.
The Eminem iPod	The flip side of this iPod features some of the rap star's favorite epithets etched into the casing.
The Steve Ballmer iPod	In an effort to counter the music piracy that the Microsoft CEO claims is aided by the iPod, this digital device will play only public-domain songs such as "Twinkle, Twinkle Little Star" and "The Battle Hymn of the Republic."
The Madonna iPod	Inexplicably, any singer you listen to on this iPod has a fake British accent.
The Janet Jackson iPod photo	Just be sure not to display any of this iPod's preloaded images around an FCC commissioner.

APPLE RELEASES LOGIC EXPRESS 7, LOGIC PRO 7

Sound Off

The iTunes Music Store lets people purchase high-quality digital music. But for left-brained folks not content with just listening, Apple is here once again with help for creating content, too. With the newest major releases of its professional music-creation and audio-production software, the company shows no signs of abandoning its core group of users.



Logic Pro 7 ($999) adds new software instruments. Sculpture, a component-modeling–based synthesizer, simulates the behavior of a vibrating string or bar; and UltraBeat, a drum machine, uses several different forms of sound synthesis—FM, subtractive, sample-based, and component modeling—while providing up to 25 independent drum voices and an integrated step sequencer. Logic Pro 7 also includes nine new effects plug-ins, including Guitar Amp Pro, a guitar-amplifier simulator that re-creates the sounds of 11 popular guitar amplifiers. Logic Pro 7 also includes new mastering plug-ins, support for Apple Loops, and distributed audio processing—which allows users to share the load of processing audio effects among multiple networked Macs.

Logic Express 7 ($299) is a streamlined version of Logic Pro that provides a basic set of tools for students, educators, and hobbyists. Like its big sibling, it features Apple Loops support and the ability to open songs from Apple's GarageBand software. Logic Express 7 also features a studio-style mixer and movie scoring, editing, and printing using its music-notation editor. Logic Express 7 includes 26 software instruments and 42 effects plug-ins, as well as the Apple Loops Utility, which enables users to create their own Apple Loops from scratch.—PETER COHEN

MULTIMEDIA BEAT

AWS Guitar Tuner 2, from Alex Wilson Studios (www.alexwilson.com): Redesigned software for guitarists adds nine alternative tuning options, more keyboard shortcuts, and a three-octave note player (free; ad-free version, $1).

Compression Master 3, from Popwire (www.popwire.com): Digital video–encoding software adds support for Windows Media 9 on Mac OS X and optimizes MPEG-4 support for speed and quality ($395; upgrade from version 2, free).

ConvertX Personal Video Recorder, from Plextor (www.plextor.com): Hardware combines Elgato's EyeTV software with Plextor's ConvertX PVR video-capture device and includes a TV tuner that works with broadcast, cable, and satellite TV ($230).

FootTrack 2.0, from T-Squared Software (www.foottrack.com): Digital video–clip cataloging software adds real-time capabilities to the search function and burns to CDs and DVDs from within the application ($50; upgrade, $20).—COMPILED BY PHILIP MICHAELS

INTERNET BEAT

Firefox 1.0, from The Mozilla Organization (www.mozilla.org): Web browser features pop-up window blocking, tabbed browsing, privacy and security features, and live bookmarks with RSS integration (free).

Galerie 4.0, from Myriad Software (www.myriad-online.com): Program for using images from picture sets to generate media galleries for Web pages adds GraphicConverter and iView Media Pro compatibility, and support for templates with multiple CSS (free).

LimeWire 4.2, from Lime Wire (www.limewire.com): Peer-to-peer file-sharing program adds firewall-to-firewall–transfer support and makes faster network connections (Pro version, $19; Basic version, free).—COMPILED BY PHILIP MICHAELS

ILLUSTRATION BY MICHAEL DOUGAN



iTrip mini shown
(actual size)

Let me take you on a trip...

Quick, where do you most often listen to music? In your car, right? The easiest way to enjoy all of that music in your car is the Griffin iTrip. Snap iTrip on your iPod or iPod mini and suddenly your music is filling up your next road trip, daily commute or business trip - right through the built-in FM stereo of any car. Buy an iTrip for your iPod or iPod mini and your favorite song will always be on the radio.

$39.99

iTrip

FM Transmitter for iPod

- The **only** FM Transmitter designed exclusively for the iPod & iPod mini
- Choose any empty station from 87.7 to 107.9, and change your iTrip stations directly from the iPod
- **iTrip for 4G iPods** also available. Please visit us online for more information
- Draws power from the iPod, no batteries ever needed – or wasted



$39.99

SightLight

FireWire Light for iSight

- Adds direct LED light to any iSight camera
- Custom-designed Fresnel-based lens diffuses light to even out shadows
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- Shares the iSight's FireWire connection



$39.99

iMic

USB Audio Interface

- Record your old records and tapes to play in iTunes, put on your iPod, or burn to CDs
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$39.99

iTalk

Voice Recorder for iPod

- Turn your iPod into a digital voice recorder with thousands of hours of recording time
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H&R BLOCK, INTUIT UPDATE TAX SOFTWARE

Pay Up

It's that time again. You'd rather not deal with it at all, but let's be realistic—it's never too early to start thinking about your taxes. And with the latest releases out already from H&R Block and Intuit, makers of tax-preparation software for the Mac, all your good excuses are gone. In addition to being updated for changes in the tax code for 2004, each app has several improvements.

H&R Block's $40 TaxCut Premium for Macintosh 2004 (www.hrblock.com)—the only version of the product for the Mac—adds Life Events Advice to its interview process (a series of questions the program asks so it can fill out your returns). The feature helps users understand changing tax situations due to events such as marriage, divorce, and incurring a mortgage. The interview is also more concise and customizable. The software includes H&R Block's TaxCut State software (normally $25) and a free federal return filing—both after rebates.



Intuit's TurboTax 2004 (www.intuit.com) has a more streamlined and customized interview with simple questions. It also makes managing multiple tax returns (for multiple family members, for example) easier. And Intuit has made updates smaller—ideal for dial-up users who need to download the update in February when the IRS finalizes its forms. TurboTax 2004 comes in three flavors: Basic ($30), Deluxe ($40), and Premier ($70)—previously only Deluxe was available for Mac users. (All versions include a free electronic filing after rebate, and some include a free TurboTax State product [usually $30] for state taxes.)—JONATHAN SEFF

WHAT'S HAPPENING IN THE DIGITAL MUSIC WORLD

Listen to the Music

It's time again to bring you up-to-date on some of the recent news in the digital music realm—and Mac users have reason to celebrate.—MACWORLD STAFF



iPOD MINI GAINS NEW FEATURES

iPod mini users who update to the latest firmware from Apple can now take advantage of the same software features the 4G iPod provides. After the update, you'll find a Shuffle Songs command in the main iPod screen for quick access to the iPod's shuffle feature, as well as a Music command. As on the 4G iPod, the Music screen now includes an Audiobooks command, and the iPod mini can also change the playback speed of those audiobooks. The mini can also hold multiple On-The-Go playlists, as well as play the Click Wheel sound through the headphones port (www.apple.com).

iPODS PUSHING MAC SALES

Investment firm Needham & Company issued a report saying that Windows users could have 100 million iPods by 2008. If only a small number of those users bought Macs, Apple's sales could surge, the report adds. Similarly, a survey of iPod users by securities firm Piper Jaffray found that 13 percent of PC-using iPod owners either had bought or planned to buy a Mac based on their experiences with the iPod—a phenomenon known as the *halo effect* (no relation to the game).

XM RADIO ONLINE GOES MAC

XM Satellite Radio announced that XM Radio Online is now compatible with Macs running Safari, Firefox, or Netscape Navigator and Windows Media Player 9.0. XM Radio Online features 72 commercial-free music channels, as well as several of XM Satellite Radio's talk and entertainment programs, for $8 per month, or $4 per month for XM Satellite Radio subscribers (www.xmradio.com).

STORAGE BEAT

BravoPro Disc Publisher, from Primera Technology (www.primera.com): Automated system with USB 2.0 connectivity burns and prints up to 100 CDs or DVDs at a time (52× CD-R version, $3,495; 16×/32× DVD±/CD-R version, $3,995).

Devideon 16× DL, from Formac (www.formac.us): Dual-layer DVD burner features 16× write, 4× rewrite, and 12× read speeds for DVD-R/RW and DVD+R/RW formats and 4× speeds for the second layer ($199).

DVD Cruiser 16, from Alera Technologies (www.buyaleratec.com): External DVD burner with USB 2.0 interface burns DVD+R discs at 16× speed, DVD-R discs at 8×, and DVD+R double layer discs at 2.4× ($199).

Popcorn, from Roxio (www.roxio.com): Backup utility for DVD burner–equipped Macs copies DVD-Video discs but not copy-encrypted or copy-protected DVDs ($50).—COMPILED BY PHILIP MICHAELS

CREATIVE BEAT

formZ 5.0, from Autodessys (www.formz.com): Updated 3-D–modeling app offers native OS X support and incorporates new API technology and scripting language (contact Autodessys for pricing).

GRASS 5.4, from OpenOSX (www.openosx.com): Geographical-information system software features a new user interface, datum transformations, and improved 3-D visualization ($40; upgrade, $20).

ImageModeler 4.0, from Realviz (www.realviz.com): 3-D–modeling application adds a 3-D–2-D integration tool for incorporating 3-D projects into 2-D photographs ($1,380; upgrade, $520).

Swift 3D Xpress, from Electric Rain (www.erain.com): Plug-in for Macromedia Flash MX 2004 converts 2-D text and artwork into 3-D animations ($129).—COMPILED BY PHILIP MICHAELS



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REVIEWS

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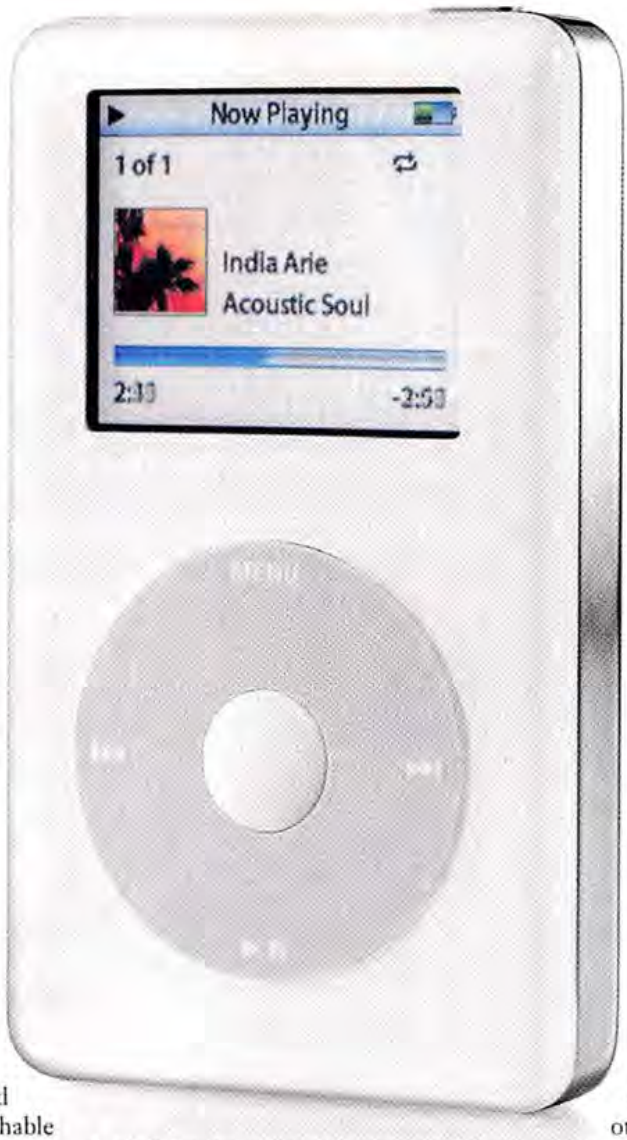
iPod Photo

If It Fits Your Needs and Your Budget, This iPod Is for You

BY CHRISTOPHER BREEN

After weeks of rumors about a more-colorful iPod, Apple turned conjecture into cold, hard fact by unwrapping the iPod photo—the first of its portable music players to offer a color screen and the ability to display digital pictures and album art. Available in two configurations—a $499, 40GB model and a $599, 60GB version—these new iPods feature new graphics capabilities, as well as increased play times and the power to send photos to a television via a composite or S-Video cable.

These iPods, while pricey, are a big step forward in the device's evolution. Though your budget might not allow for an iPod photo, you'll want one mere seconds after you pick one up.



Art-full The iPod photo adds some visual flair to your tunes by showing the album art—as long as you have it in iTunes.

In Full Color

As you might expect, the iPod photo's greatest enhancement is its 65,536-color display. Though all the colors are included primarily for the purpose of showing photos (you can fit as many as 30,000 on the device), the display brightens everything about the iPod. Menus are easier to read, red calendar events really stand out, and Solitaire finally offers cards distinguishable enough to make the game playable. Even with their backlights on, other iPods look positively drab in comparison.

When backlighting isn't switched on, however, the iPod photo's display can be difficult to read indoors and away from direct light. Its display is far easier to read outdoors.

All This and More

Aside from its graphic capabilities and its color screen, the iPod photo is a fourth-generation iPod. It sports the same Click Wheel controller and ports as the most-recent monochrome iPods and iPod minis. And like Apple's other current iPods, it supports FireWire and USB 2.0 connections on a Mac running Mac OS X 10.2.8 and later, and on a PC running Windows 2000 or XP.

Inside the box, you'll find everything typically packed with a new iPod—FireWire and USB 2.0 cables, a power adapter, Apple's white earbuds with two sets of foam covers, and a CD including iTunes 4.7 and the latest iPod software updates. Also tucked inside are a few extra items: an iPod carrying case; a five-foot AV cable for connecting the iPod to a television; and a special dock that includes not only the usual audio-out port but also data and power connectors, as well as an S-Video port for sending a higher-quality video signal to a television when the iPod is placed in its dock. (An S-Video cable is not included.)

The iPod photo also behaves similarly to a fourth-generation iPod. Like its audio-only counterpart, the iPod photo will charge via USB 2.0 or FireWire and can be configured to boot your Mac. Using Apple's iSync, you can synchronize contacts and calendars between a Mac and the iPod photo. And an iPod photo formatted for a Windows PC will mount on a Mac and behave almost exactly like an iPod formatted for the Mac. In addition, this model has some minor usability enhancements that earlier iPods don't. For example, song, artist, and album entries (Mary Chapin Carpenter, for instance) that don't fit on the iPod photo's screen scroll across in ticker-tape fashion (instead of appearing as "Mary Chapin Carp . . ."). And this isn't just on the Now Playing screen: it's on the Artists, Albums, and Songs screens, too.

And thanks to the new Photos menu item, pictures you download from a media card via Belkin's Media Reader for iPod or Digital Camera Link for iPod (; October 2004) now appear at the bottom of the Photos screen rather than mixed in with the other items in the Extras screen.

Big Battery Charge

A more-significant improvement is the iPod photo's ability to hold a charge longer than other iPods. Where other iPods can play music continuously for up to 8, 10, or 12 hours (depending on the iPod model), Apple boasts that the iPod photo offers 15 hours of continuous music and 5 hours of slide-show play. (This 5-hour figure applies to slide shows you play on the iPod's screen with the device's TV Out option turned off.)

My 60GB iPod photo played music for 16 hours and 10 minutes and, after a full recharge, displayed a repeating slide show for 5 hours and 39 minutes. This was under ideal conditions—meaning that I fully charged the iPod, pressed play, and turned off the backlight, EQ, and Sound Check options. However, with the iPod photo connected to a television, the slide-show playback time dipped dramatically—offering only 2 hours of continuous play.

PHOTOGRAPHY BY PETER BELANGER

26 iPod picture viewer
iPod photo

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Lexmark E332n
Oki Data B4350n

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36 Image-editing program
Photoshop Elements 3.0

38 Web-page editor
Contribute 3

40 Painting software
Painter IX

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Just Browsing Use the iPod photo's browsing grid to select an image to view (device shown at actual size).

Photo Prowess

The iPod photo displays your photos either in a 25-thumbnail grid or as full-screen images that take up most of the iPod's two-inch diagonal display. The display in this grid view is crisp enough that you can distinguish dissimilar images—one image of a flower, another of a bird, and yet another of your grandmother. However, if the grid has several similar shots taken with a digital camera's rapid-fire feature, you'll have some trouble picking out exactly the image you want. After you switch into full-screen mode, distinguishing similar images is quite easy.

Picture navigation is a breeze. Use the scroll wheel to quickly advance through an album; a yellow selection box appears around each selected photo. To move backward and forward through an album one image at a time, press the back and forward buttons on the iPod's Click Wheel.

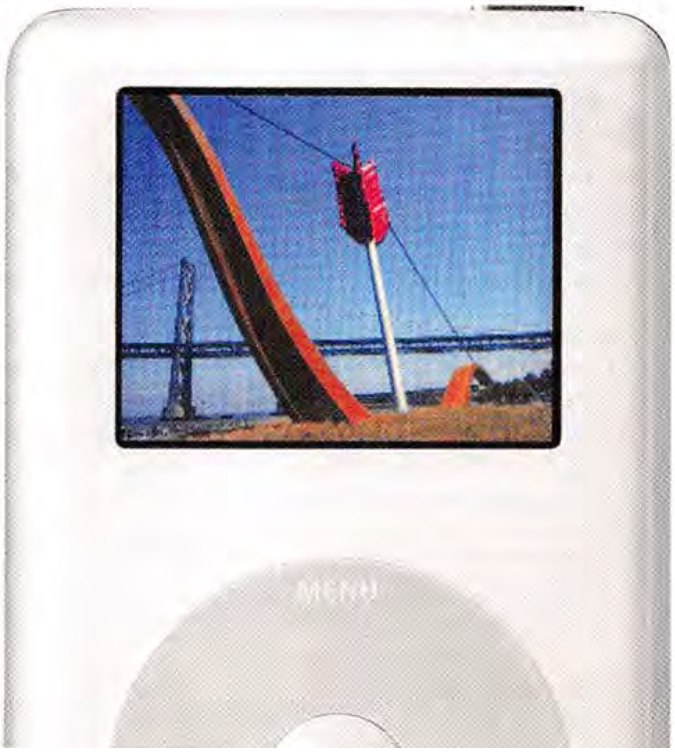
Displaying a slide show is just as straightforward. Select Slideshow Settings in the Photos screen, and then choose the options you want—time per slide, the audio playlist you want to accompany your slide show, repeat, shuffle photos, transitions, TV Out, and TV signal (NTSC or PAL). Then click back to the Photos screen, pick a photo album, and press play to begin the slide show.

Nearly Picture Perfect

The iPod photo's photo-synchronization and playback schemes are also intuitive. Simply connect the iPod to your computer, fire up iTunes 4.7 or later, open the iPod preference pane (now available within iTunes: Preferences), click on the Photos tab, and tell iTunes where to keep your pictures. And you can synchronize the iPod to your iPhoto Library (the entire thing or just selected albums) or to any folder on your computer.

When iTunes synchronizes your pictures for use on the iPod, it converts them to a format compatible with the iPod rather than copying the original photos to the device. Though my test images were saved at a lower resolution than my original photos, they still looked great on my Sony television. iTunes also lets you copy original images to the iPod, but if you do this, the iPod won't display the images or project them to a television. This option is a convenient way to transport, not to view, images.

This required photo-conversion process within iTunes is where expectations and reality part company. Hearing a name like iPod photo, you may expect that when you load pictures on the iPod by other means (via a card reader, for example) those pictures will be viewable on the iPod. Regrettably, this is not the case. Pictures can be viewed on the iPod photo only after they've been processed by iTunes. Potential buyers should be aware that the iPod photo isn't meant to be a tool for photographers who want to preview pictures in the field.



As Big as It Gets In full-screen mode, the iPod photo's 2-inch LCD gives you a clear view of your photos.

Macworld's Buying Advice

How do you know if the iPod photo is the right iPod for you? If the size of your music collection overwhelms lower-capacity iPods, if you want to easily cart tens of thousands of digital pictures with you, if you want to display those pictures on a television without having to lug along a computer, or if you simply have an appreciation for beautiful design (and can afford to indulge that appreciation), you'll find that the $100 to $200 price increase is justifiable. If you can make do with a lower-capacity music player and are able to flash your photos with your cell phone or PDA, Apple has plenty of other iPod models that will make you happy. □

RATING: ★★★★½
PROS: Color screen is crisp; increased battery life; massive music and picture storage with 60GB model.
CONS: Display too dark for some indoor lighting conditions when backlight is off; no bundled S-Video cable; expensive.
PRICE: 40GB model, $499; 60GB model, $599
COMPANY: Apple Computer, www.apple.com

For tips on making the most of your iPod photo—and on taking it far beyond simply viewing photos and listening to music—see "Inside the iPod Photo" (*Digital Hub*), page 80.

iBook G4s

Portables Get a Speed Boost; AirPort Extreme Now Standard

BY HENRY NORR



On the outside, the iBooks have scarcely changed in nearly four years, but on the inside, they just keep getting better. Apple cranked up the clock speed on all three models, made AirPort Extreme standard across the line, cut the price of the entry-level model, and added a SuperDrive at the top of the line. Indeed, the SuperDrive in the top model is the only difference between the two higher-end iBooks, so we tested only the low-end model and the high-end model for this review.

The October update to the consumer and education portables brought the base configuration, priced at $1,099 since last spring, back down below the psychologically significant $1,000 mark—to $999. In addition, Apple increased the speed of the G4 processor from 1GHz to 1.2GHz and added an AirPort Extreme card; the 802.11g wireless network card, with a top speed of 54 Mbps, was previously a $79 option.

Other specs of the entry-level model remain unchanged: it still has a 12.1-inch screen, a 30GB hard drive, and a slot-loading Combo (DVD-ROM and CD-RW) drive. The standard configuration still includes only 256MB of RAM—not enough to use OS X efficiently, in our judgment—but you can use the free DIMM slot to boost the memory to as much as 1.25GB. As before, this iBook has connectors for Ethernet (10/100BaseT), a V.92 modem, and video out, as well as two USB 2.0 ports and one FireWire 400 port.

In the case of the midlevel iBook, with its 14.1-inch screen (but the same 1,024-by-768-pixel resolution as the 12.1-inch model), the latest update brought no change in price—it's still $1,299. However, its processor speed has gone from 1GHz to 1.33GHz, hard-drive capacity has increased from 40GB to 60GB, and AirPort Extreme has again moved from the options page to the standard-equipment list. In other respects, the $1,299 configuration resembles the $999 one: 256MB of RAM, the same list of ports, and a Combo drive.

Until this update, customers buying the middle iBook model from Apple's online store had the option of upgrading to a SuperDrive (CD-RW and DVD-R) for $200. No longer—now, iBook buyers who want to burn DVDs on-the-go have to choose the top-of-the-line model, in which the SuperDrive is now standard. That model, which also has a 14.1-inch, 1,024-by-768-pixel screen, is still priced at $1,499, but its G4 processor has gone from 1.2GHz to 1.33GHz, matching the midlevel model.

The speed bump and the addition of the SuperDrive are the only changes to the high-end model: it still comes with 256MB of RAM, a 60GB hard drive, an AirPort Extreme card, and the same ports its siblings have.

A Bluetooth module, providing wireless connectivity to selected mobile phones, printers, and other peripherals, remains a $50 option for customers buying from Apple's online store.

As our benchmark testing suggests, the extra performance resulting from the new iBooks' faster processors won't blow your socks off; in fact, the differences are barely noticeable without a stopwatch. But the other improvements to the lineup make the iBooks considerably better values than they were.

Macworld's Buying Advice

We've always appreciated the entry-level iBook's compact size and relatively low price; Apple's $100 price cut and the addition of AirPort Extreme make it a better value than ever. Granted, its 30GB hard drive is a bit puny by today's standards, but if you buy online from Apple, you can double your storage capacity for just $75. If you need a larger screen or must have DVD-burning capabilities, you'll obviously want one of the larger, pricier models; otherwise, we see no reason not to take advantage of a genuine bargain. □

12-INCH iBOOK G4/1.2GHZ

RATING: ★★★★½

PROS: Bargain price; compact size; wireless networking now included.

CONS: Inadequate memory; small hard drive.

PRICE: $999

COMPANY: Apple Computer, www.apple.com

14-INCH iBOOK G4/1.33GHZ WITH SUPERDRIVE

RATING: ★★★★

PROS: Larger screen; larger hard drive; wireless networking now included; SuperDrive.

CONS: Inadequate memory; relatively bulky.

PRICE: $1,499

COMPANY: Apple Computer, www.apple.com

To view technical specifications for these models, go to find.macworld.com/0229 (14-inch iBook G4 with SuperDrive), find.macworld.com/0230 (14-inch iBook G4 with Combo drive), or find.macworld.com/0207 (12-inch iBook G4).

Macworld LAB TEST	Speedmark 3.3	Adobe Photoshop CS	Cinema 4D XL 8.5	Compressor	iMovie 4.0.1	iTunes 4.6	Unreal Tournament
	OVERALL SCORE	SUITE	RENDER	MPEG-2 ENCODE	RENDER	MP3 ENCODE	FRAME RATE
Power Mac G5/1.8GHz	165	1:52	3:05	10:18	0:45	1:56	39.4
20-inch iMac G5/1.8GHz	*163*	*1:51*	*3:02*	*10:05*	*0:39*	*1:53*	*33.6*
Power Mac G5/dual-1.8GHz	*194*	*1:29*	1:32	*5:03*	*0:41*	*1:17*	*32.6*
Power Mac G5/1.8GHz (previous)[A]	*169*	*1:48*	*3:00*	*7:16*	*0:43*	*1:54*	*39.7*
14-inch iBook G4/1.33GHz	116	2:18	5:11	14:37	1:07	2:48	16.0
12-inch iBook G4/1.2GHz	106	2:34	5:45	14:34	1:13	3:07	15.6
14-inch iBook G4/1.2GHz	*109*	*2:28*	*5:45*	*15:24*	*1:12*	*3:07*	*14.9*
15-inch PowerBook G4/1.33GHz	*126*	*2:15*	*5:05*	*12:49*	*1:02*	*2:44*	*25.3*
	>Better	<Better	<Better	<Better	<Better	<Better	>Better

BEST RESULTS IN **BOLD**. REFERENCE SYSTEMS IN *ITALICS*. [A] With an 80GB hard drive and the graphics card from a new 600MHz bus, 1.8GHz single-processor Power Mac installed.

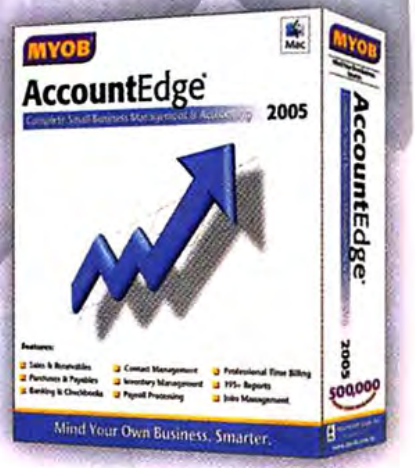
Speedmark 3.3 scores are relative to those of a 1GHz eMac G4, which is assigned a score of 100. Cinema 4D XL, Compressor, iMovie, iTunes, and Photoshop scores are in minutes:seconds. All systems were running Mac OS X 10.3.5 with 512MB of RAM installed. We used iMovie to export a movie that was 1 minute and 40 seconds long to QuickTime: Email. We tested MP3 encoding with an audio-CD track that was 45 minutes long, converting it from the hard drive using iTunes' High Quality setting. The Photoshop Suite test is a set of 14 scripted tasks using a 50MB file. Photoshop's memory was set to 75 percent and History was set to Minimum. We used Unreal Tournament's Antalus Botmatch average-frames-per-second score; we tested at a resolution of 1,024 by 768 pixels. We used Compressor's Fast Encode preset. For more information on Speedmark 3.3, visit www.macworld.com/speedmark.—MACWORLD LAB TESTING BY JAMES GALBRAITH AND JEFFY K. MILSTEAD

PHOTOGRAPH BY PETER BELANGER

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Feature	AccountEdge 2005	QuickBooks: Pro 6 for Mac
Import Downloaded Bank Statement for Easy Reconciliation	✓	
Integrated Direct Deposit	✓	
Process Credit Cards	✓	
Invoice/Forms Designer	✓	
Sub Assembly	✓	
Inventory Items	✓	
Email Purchase Orders	✓	
Batch Emailing of Invoices	✓	

Feature	AccountEdge 2005	QuickBooks: Pro 6 for Mac
Sales Orders	✓	
Keep Pictures of Items	✓	
Track Billable Time in Hours or Units	✓	
Track Time Billing Write-offs and Carryovers	✓	
Microsoft® Word Integration	✓	
Custom Lists for Contacts	✓	
Multiple Currencies	✓	
Network Ready	Network Edition	

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Power Mac G5/1.8GHz

Single-Processor Model Rounds Out the Low End

BY HENRY NORR



It can't be the good, the better, or the best model, so just where does the new $1,499 Power Mac G5 fit into Apple's pro desktop lineup? *Slowest* is one way to describe it. *Cheapest* is the other.

Unlike its siblings in the current Power Mac family, the new model has only a single processor—a 1.8GHz G5. Its frontside bus—the channel connecting the CPU to the rest of the system—operates at one-third the clock speed of the processor (600MHz). By contrast, the current dual-processor Power Macs have frontside buses running at half the processor's speed (900MHz, 1GHz, or 1.25 GHz).

Not surprisingly, the new machine's speed scores lag well behind the other Power Macs' (see the benchmark chart, page 28). On some tasks, particularly with applications optimized for dual processors, the difference is dramatic: rendering video with Maxon's Cinema 4D XL or encoding into MPEG-2 format with Apple's Compressor takes about twice as long on the new machine as it does on the next model up. Overall, on *Macworld*'s Speedmark 3.3 benchmark suite, the new Power Mac barely beat out its iMac G5 cousin.

In other respects, the new model is similar to the system that used to be the low end of the Power Mac line, the $1,999 dual-1.8GHz version. You get many of the advanced technologies that are common across the Power Mac G5 family, including FireWire 800, Gigabit Ethernet, an AGP 8× Pro graphics slot, and an 8× SuperDrive (CD and DVD burner).

But you also have to settle for some technological limitations and somewhat modest standard specs: an inadequate 256MB of memory, expandable to only 4GB (half the capacity of the higher-end Power Macs); an 80GB hard drive; a decent but unexciting video card (the Nvidia GeForce FX 5200 Ultra with 64MB of dedicated RAM); and three expansion slots of the PCI variety, rather than the faster PCI-X slots used in the higher-end models.

Macworld's Buying Advice

If you're a graphics or video pro, or anyone who does computation-intensive work, the new Power Mac isn't for you—we strongly suggest that you opt for one of the dual-processor models, even if that means putting off your purchase until you can save up the price difference. People who need an expandable desktop system but don't require maximum performance—who are looking for a file server, say, or a multimonitor instrument-control station—may see the latest Power Mac as an attractively priced alternative. □

RATING: ▮▮▮

PROS: Costs $500 less than the lowest-level dual-processor Power Mac; includes most of the advanced technologies in the more expensive models.

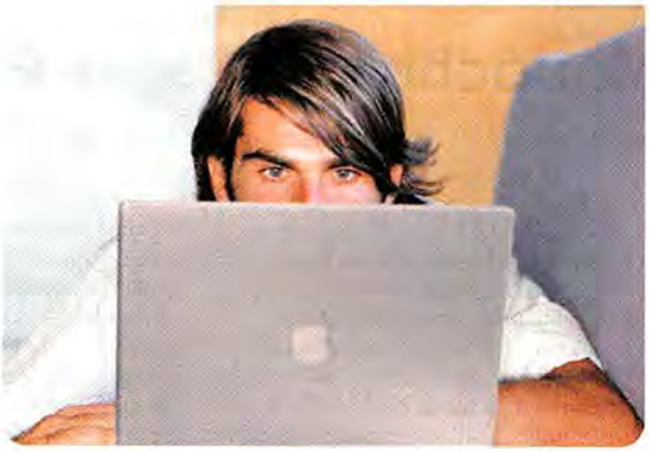
CONS: Much slower than other Power Macs; inadequate RAM and smallish hard drive; 4GB maximum memory; PCI rather than PCI-X slots.

PRICE: $1,499

COMPANY: Apple Computer, www.apple.com

To view technical specifications for this model, go to find.macworld.com/0228.

PHOTOGRAPHY BY PETER BELANGER



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Monochrome Laser Printers

With So Many Features Available, Your Choices Aren't Black and White

BY JAMES GALBRAITH

Color laser and ink-jet printers seem to get all the attention. Ink-jet printers are inexpensive and print great photographs, but their text isn't as sharp as laser printers' output. And their expensive inks make the cost per page too high for an office full of people to be printing e-mail and expense reports on a daily basis. The prices of color laser printers have come down considerably, but if most of the documents you print are of the general office variety—primarily text, and some graphics—the price and features of a small workgroup monochrome laser printer are hard to beat. This month, we look at four network-enabled monochrome laser printers priced at or below $500: the Brother HL-5170DNLT, the Hewlett-Packard LaserJet 1320n, the Lexmark E332n, and the Oki Data B4350n. The standouts were the Brother, for having the most features and being the least-expensive printer, and the Lexmark, for its outstanding print quality.

The Setup

Although they're designed to support small workgroups, each of these printers is compact enough to be used as a single-user desktop laser printer. The HP's cube design takes up the least amount of desk space—about 14 inches square. With its additional standard paper tray attached, the Brother is almost 14 inches high—it's the tallest of the group by nearly 4 inches, but it should fit easily into most workspaces. The Brother and the Oki Data sport retro-conservative beige-and-gray cases, while the HP mixes in some dark gray for a little flair (Oki Data has also recently introduced a black version of its printer). The Lexmark makes a fashion statement with its black-and-silver contoured case and the bright blue power button on its front.

Setup and installation of each printer was straightforward, though we did get a little toner on our hands as we tried to install the Oki Data's toner cartridge. The Brother, Lexmark, and Oki Data printers use separate toner-cartridge and image drums, while the HP combines these into one piece. All the printer makers offer standard and high-capacity toner cartridges; the higher-capacity cartridges have a lower cost per page. Looking just at the toner costs and the number of prints each toner cartridge can make, as reported by the printer makers, the HP appears to have the highest cost per page—3 cents using the standard-capacity cartridge and 2 cents using the high-capacity version. Factor in the cost per page of the imaging drums, though, and all the printers come in at about 2 cents per page when using high-capacity cartridges.

The Oki Data's software setup was not very Mac-like. The box contained two CDs with different part numbers but very similar descriptions and contents. And the files on the CDs were not clearly marked. For example, the PDF manual, which is named B4xUGen.pdf, was near the bottom of one CD's 74 top-level files and folders.

Once turned on and connected to the network via Ethernet, each printer was able to automatically retrieve an IP address. All but the Oki Data worked with Apple's Rendezvous networking technology, which allows you to choose the printer and then view and manage it via Apple's Safari Web browser without needing to know its IP address. The Oki Data was also configurable via a browser, but you'll need to know the IP address and then manually enter it into your browser's address bar. Each printer includes a USB 2.0 port for non-networked printing. The Brother and the Oki Data also provide parallel connectors for connection to Windows PCs.

All of the printers were easy to use. The HP, Lexmark, and Brother printers have a



Ready to Print We reviewed (from left to right) the HP LaserJet 1320n, the Brother HL-5170DNLT, the Oki Data B4350n, and the Lexmark E332n.

MONOCHROME LASER PRINTERS COMPARED

COMPANY	PRODUCT	RATING	PRICE	CONTACT	RESOLUTION[A]	PAPER CAPACITY	RAM (MAXIMUM)	PROS	CONS
Brother	HL-5170DNLT	●●●●	$400	www.brother.com	600 × 600	500 sheets	32MB (160MB)	Rendezvous; built-in duplexing; inexpensive; excellent print quality for text; comes with additional paper tray.	Graphics had banding in gradients.
Hewlett-Packard	LaserJet 1320n	●●●●	$500	www.hp.com	1,200 × 1,200	250 sheets	16MB (144MB)	Rendezvous; built-in duplexing; excellent print quality for text.	Slow PDF print speeds; least installed RAM; graphics had banding in gradients.
Lexmark	E332n ★	●●●½	$499	www.lexmark.com	1,200 × 1,200	250 sheets	32MB (160MB)	Rendezvous; best print quality.	No duplexing option.
Oki Data	B4350n	●●●	$420	www.okidata.com	600 × 1,200	250 sheets	32MB (272MB)	Fastest print speeds; excellent print quality for text.	Confusing software installation; flawed graphics prints; no Rendezvous support.

★ = Editors' Choice. [A]Maximum hardware resolution (not interpolated by software), in dots per inch.

PHOTOGRAPHY BY PETER BELANGER

few buttons and indicator lights that show print-job status and alert you to paper jams and other problems. The Oki Data has an LED that shows the printer's status.

Feature Presentation

In terms of features, the Brother has the most complete list. Like the HP, the Brother offers a built-in automatic duplexing capability (for printing on both sides of a page). Although it takes longer to print in duplex mode, doing so can save a lot of paper. The Brother also comes with a second paper tray, doubling the others' 250-page capacity, so you won't have to fill the paper trays as often, and you can have two types of paper in sizes as large as legal (8.5 by 14 inches) available to you at the same time. You can use one tray to hold cover stock or higher-quality paper that's suitable for presentations, and fill the second tray with less-expensive paper for everyday, or draft, printing. Additional paper trays are available as options from Oki Data (a 500-sheet tray for $190) and Lexmark (a 550-sheet tray for $199). Though HP doesn't offer an optional paper tray for the 1320n, it also sells the LaserJet 1320tn, which includes an additional 250-sheet paper tray, for $100 more. All the paper trays were standard, with easy ways to insert envelopes or smaller paper.

All of these printers are PostScript Level 3 compatible and offer some form of a high-resolution print mode. The HP and the Lexmark offer a 1,200-by-1,200 resolution, the Oki Data can print at a resolution of 600 by 1,200, and the Brother is a 600-by-600-dpi printer that claims to provide 1,200-dpi–like print quality through hardware interpolation.

Macworld Lab Test	Juried Results		Timed Results	
	TEXT QUALITY	GRAPHICS QUALITY	10-PAGE WORD DOCUMENT	4-PAGE PDF DOCUMENT
Brother HL-5170DNLT	Excellent	Good	0:43	2:10
Hewlett-Packard LaserJet 1320n	Excellent	Good	0:35	3:19
Lexmark E332n	Excellent	Very Good	0:35	1:09
Oki Data B4350n	Excellent	Flawed	0:35	1:00
			<Better	<Better

BEST RESULTS IN **BOLD**.

A jury of *Macworld* editors looked at a variety of prints and rated each printer's text and graphics output as Excellent, Very Good, Good, Flawed, or Unacceptable. We recorded the time it took each printer to print a 10-page Microsoft Word document at 600 dpi and a 4-page PDF document at 1,200 dpi. Due to the Oki printer's limited print-quality options, we selected its Fine mode (600 by 1,200) for both tests.—MACWORLD LAB TESTING BY JEFFY K. MILSTEAD AND JAMES GALBRAITH

Mono a Mono

If you've ever tried printing something out at the last minute before running into a meeting, then you know that a printer's speed is important—you don't want it to take its sweet time spitting out your document. We tested the print speeds of each printer using their default amounts of RAM. The all-around fastest printer in this group was the Oki Data. It was able to print our 10-page Microsoft Word test document in just 35 seconds and our 4-page PDF file in 1 minute. The HP, the Lexmark, and the Oki Data tied for first place in the Word test, but the Lexmark took about 9 seconds longer than the Oki Data in printing the PDF document. The HP came in a distant last on the PDF test, taking three times as long as the Oki Data to complete the task. The Brother took the longest to print the Word document, but it finished the PDF about a minute faster than the HP did.

Each of the printers came with 32MB of RAM, except for the HP, which came with 16MB. This may explain its slowness when printing the PDF document. You can add much more RAM to any of these printers, which should make printing large files with lots of PostScript data faster.



Editors' Choice The Lexmark E332n led this pack of printers.

Fine Prints

A strength of laser printers is the sharp, clear text they produce, and none of these printers failed to impress. A jury of *Macworld* editors found that each of the four printers produced excellent text. One editor thought that the Lexmark's text was too heavy, but the majority found the density very appealing. The jury was a little more split when rating the printers' graphics output. The Lexmark received the highest marks for its ability to produce fine, curved lines and smooth gradients. The Lexmark's prints were still darker than the others, but most jurors thought that this helped to create depth and enhanced printed photos. The HP and the Brother earned Good ratings. They both had more vertical banding in the gradients and lower contrast than the Lexmark. The Oki's graphics prints, with some slight kinks in curved lines and both horizontal and vertical banding in images and gradients, were rated as Flawed.

Macworld's Buying Advice

All of these printers produced excellent text, but the Lexmark E332n led the rest with its ability to produce the best graphics in a timely fashion. Even though the Brother HL-5170DNLT's graphics printing was not quite as stellar as the Lexmark's, its low price, duplexing capability, and extra paper tray make it the best value of the bunch. The HP LaserJet 1320n has a nice, compact design; good overall print quality; and built-in duplexing. But it costs more and has a lower paper capacity than the Brother. Unfortunately, the Oki Data B4350n's fast print speeds were not enough to offset its lack of Rendezvous support and its low image quality. □

Ink-Jet Photo Printers

Canon's Pixma iP8500 and i9900 Run Swiftly and Silently

BY JEFF DORGAY

Canon has released a pair of color ink-jet photo printers that are similar in technology but target somewhat different markets. The Pixma iP8500 delivers fine-quality prints no larger than letter size. The i9900 also prints well, and it can produce prints as large as 13 by 19 inches. Spending time with these two printers revealed more similarities than differences in color quality, but variations in the way they operate will determine which model better suits your needs.

Extra Colors

Both of these printers feature Canon's ChromaPlus eight-color ink set, which includes red, green, light cyan, and light magenta (the last two are referred to as photo cyan and photo magenta) in addition to the traditional CMYK print cartridges. These extra colors perform two functions: the light cyan and light magenta help add density to lighter colors so pastels and some flesh tones reproduce more accurately, while the bright red and green inks extend the CMYK gamut, giving bright, saturated primary colors more punch.

The ChromaPlus inks deliver some of the brightest colors on the market. And while both of these printers excel in reproducing vivid primary colors, subtle pastels are also well represented. Gray-scale images have a warm, slightly sepia cast. Although this is aesthetically pleasing, it's difficult to get a completely neutral black-and-white print with these inks.

The Pixma iP8500 and the i9900 use identical ink cartridges and print heads, and have an extremely small drop size—2 picoliters. Maximum resolution is 2,400 by 4,800 dpi, and you choose the resolution in the print driver according to the media and quality setting you're using. If your digital camera supports the PictBridge or Bubble Jet Direct standard, you can print directly from your camera without a computer. However, this means that you're relying on the camera's color accuracy alone. Generally, a few adjustments in an image-editing program will enhance print quality.

Unlike Epson, which went with a pigment ink set—for archival permanence—with its UltraChrome inks, Canon has gone the dye route with its ChromaPlus inks. While dye-based inks always lay down a bit more smoothly on paper than pigmented inks, they're much less permanent than the 100-year archival standard. Their shorter life span is fine for most consumer purposes, but keep this in mind if you have fine-art aspirations.



CANON PIXMA iP8500

RATING: ♦♦♦♦

PROS: Great color; full duplex printing; fast; quiet; updated design looks cool and protects the printer when it's not in use.

CONS: Dye-based inks lack long-range archival permanence; no FireWire port; no option for fine-art papers; black-and-white prints have a sepia cast.

PRICE: $350

COMPANY: Canon, www.canon.com

Quick, Quiet Quality

Setup for both printers is straightforward: just install the driver, align the print head, and enter the correct values in the setup menu, and you're ready to print.

In tests, both printers achieved the same speed when printing a 22MB 8-by-10-inch reference print, taking 1 minute and 18 seconds to print via the USB 2.0 port. When printing via the USB 1.0 port, speeds dropped substantially, to 1 minute and 56 seconds. Via the i9900's FireWire port, printing was no faster or slower than it was using the USB 2.0 connection. A 4-by-6-inch borderless color print took 19 seconds to print with USB 2.0 and FireWire, and 26 seconds to print with USB 1.0. But you'll hardly notice this breakneck pace, as both printers run quietly.

As expected, the printers displayed identical color balance on Canon's Photo Paper Pro, which was a bit cyan and blue in the light areas of the test print and had a somewhat cool overall balance. With a minor correction in the print driver, I was able to achieve a neutral balance—prepare to spend a little time to get the look you want. Surprisingly, I got a slightly more neutral print with the standard settings using Konica Minolta's Professional Photo Glossy paper.



CANON i9900

RATING: ♦♦♦♦½

PROS: Great color; fast; quiet; can produce larger prints than the Pixma iP8500; FireWire connection.

CONS: Dye-based inks lack long-range archival permanence; no option for fine-art papers; black-and-white prints have a sepia cast; no duplex printing.

PRICE: $500

COMPANY: Canon, www.canon.com

Sibling Differences

The iP8500 is part of Canon's new Pixma series, which emphasizes appearance and is aimed at the SOHO market. With all its doors shut, it looks more like a piece of home theater gear than a printer, and its design helps keep dust and dirt out of the unit when it's not in use.

In addition to the standard top-loading paper slot, a paper cassette underneath the printer lets you load additional sheets or perform double-sided printing on Canon-approved paper. You can print text in duplex mode on bond paper, and perform manual duplexing with either of the paper trays.

With its more traditional style, the i9900 has one top-loading paper tray, and it took only 2 minutes and 49 seconds to produce a 13-by-19-inch borderless print at the highest-quality setting. This was quite impressive.

Macworld's Buying Advice

The printer you should purchase depends on your workflow, desk real estate, and budget, as well as the printer's image quality and image longevity. Of these two models, I prefer the i9900 for its ability to produce much bigger prints and for its FireWire port. □

PHOTOGRAPHY BY PETER BELANGER

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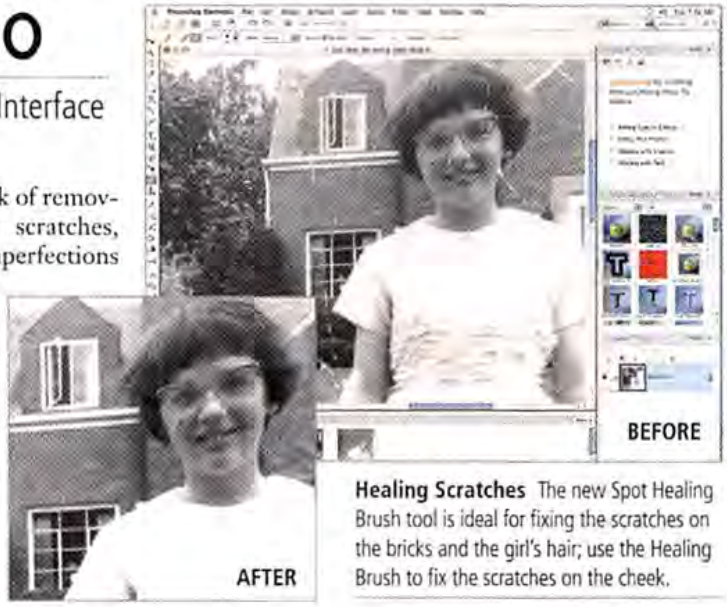
Photoshop Elements 3.0

Upgrade Offers Enhanced Editing Tools and Streamlined Interface

BY JIM HEID

A photo-editing program aimed at nonprofessionals needs to serve two audiences: experienced shutterbugs who want advanced digital darkroom features, and casual snap shooters who just want better shots.

Adobe Photoshop Elements 3.0 dances across this tightrope with aplomb. It sports numerous editing features that were formerly available only in the $699 Photoshop CS, and it wraps its new powers in a revamped user interface that makes image editing more approachable for casual photographers and inexperienced image editors.



Healing Scratches The new Spot Healing Brush tool is ideal for fixing the scratches on the bricks and the girl's hair; use the Healing Brush to fix the scratches on the cheek.

A New Face

Elements 3's biggest interface change is the new Quick Fix editing mode. In this mode, Elements displays sliders for improving color balance and bringing out details hidden in dark shadows and washed-out highlights. You can adjust each slider by hand or click on the slider's Auto button to have Elements apply its best judgment to your photo. It's an effective approach that provides quick results and invites experimentation.

More-experienced pixel pushers will want to work in Elements' default mode, now called Standard Edit. Adobe tweaked the interface here, too—the tool palette is now docked on the left edge of the screen, while Elements' other palettes live in a new *Palette Bin* on the right edge. It takes up too much space for my taste; fortunately, you can reclaim screen space by undocking the palettes you use most and then hiding the Palette Bin. The undocked palettes float above your image, as they did in Elements 2.0 (♦♦♦♦♦; December 2002).

Another new window, the Photo Bin, simplifies switching between open documents by showing a thumbnail version of each open photo. Click on a thumbnail, and the photo's window becomes active.

More Power to the Pixels

New users will love the Quick Fix mode, but it's the treasure chest of new editing features that makes Elements 3 so valuable. The new Healing Brush and Spot Healing Brush tools make short work of removing flaws, such as scratches, wrinkles, and skin imperfections (see "Healing Scratches"). The Healing Brush works like its Photoshop CS counterpart: you option-click on an area adjacent to the flaw and then paint over the flaw.

Unique to Elements 3, the Spot Healing Brush tool enables you to fix flaws without having to option-click to specify a source point. Simply click and drag across a flaw, and away it goes—usually.

In my tests, the Spot Healing Brush worked best when fixing a flaw that was surrounded by a sea of similar pixels—for example, painting out a power line that slices across a blue sky. When the Spot Healing Brush approached an area where the image changed dramatically, I often got odd results. (For a hands-on look at these new tools, see "Image Editing beyond iPhoto," *Digital Hub*, January 2005.)

Another feature Elements has borrowed from Photoshop CS is the new Shadows/Highlights command. It replaces Elements 2's Fill Flash command, and it does an astonishing job of rescuing detail in shadows and bright areas.

Let's Talk Raw

Elements 3 adds the ability to open and process raw photos—the unmodified "digital negatives" captured by a digital camera's light sensors. The raw format gives you more control over exposure, color balance, and other attributes.

Like Photoshop CS, Elements can open a raw image in 16-bit mode. A 16-bit image provides more editing room—you can make dramatic adjustments in exposure and color balance with less risk of introducing visible artifacts. In this mode, each red, green, and blue image channel can be represented by more than 32,000 levels. The standard 8-bit mode is limited to 256 levels per channel.

Alas, most of the tools in Elements 3 don't work in 16-bit mode. You can make color and exposure adjustments to 16-bit images, but you can't retouch them. This is a little frustrating, though it is a reasonable compromise. The Elements features that *do* work in 16-bit mode are those in which the extra room pays off. After you've tweaked your image in 16-bit mode, you can always convert it to 8-bit mode for retouching.

Added Functionality

What else is new? The File Browser has new keyword and searching features. Batch processing is greatly enhanced: you can apply several Quick Fix features to an entire folder of images while you do something else. (It's ideal for preparing a set of raw files.) A new Divide Scanned Photos command lets you scan multiple photos at once; it then automatically separates them into individual documents.

The new Filter Gallery, another feature taken from Photoshop CS, lets you experiment with image filters and apply multiple filters at once. A Cookie Cutter tool lets you superimpose hearts, paws, and other shapes on an image. And a new Reduce Noise filter cleans up grainy images, though you won't find details about it in Elements' online help.

Some Problems

Speaking of online help, it doesn't work if you have multiple user accounts on your Mac and you run Elements 3 from an account that does not have administrator privileges. *Macworld* contributor Rob Griffiths has published a fix (see find.macworld.com/0197), but it requires typing several lines of code into Terminal—not a task for neophytes.

There are other flaws in Elements 3. Windows sometimes appear in strange places when you switch between the Standard Edit and Quick Fix modes. And Elements is obnoxious about registration: every time you launch the program, a dialog box appears asking whether you'd like to register. There's no way to avoid this nag except to acquiesce, even if you don't want to.

Macworld's Buying Advice

While Photoshop Elements 3.0's flaws are unfortunate, they don't significantly detract from this must-have upgrade for digital photographers. Whether you spend your time in Quick Fix mode or want to shoot raw and fix every flaw yourself, you'll marvel at how much this inexpensive program can improve your photographs. □

RATING: ♦♦♦♦

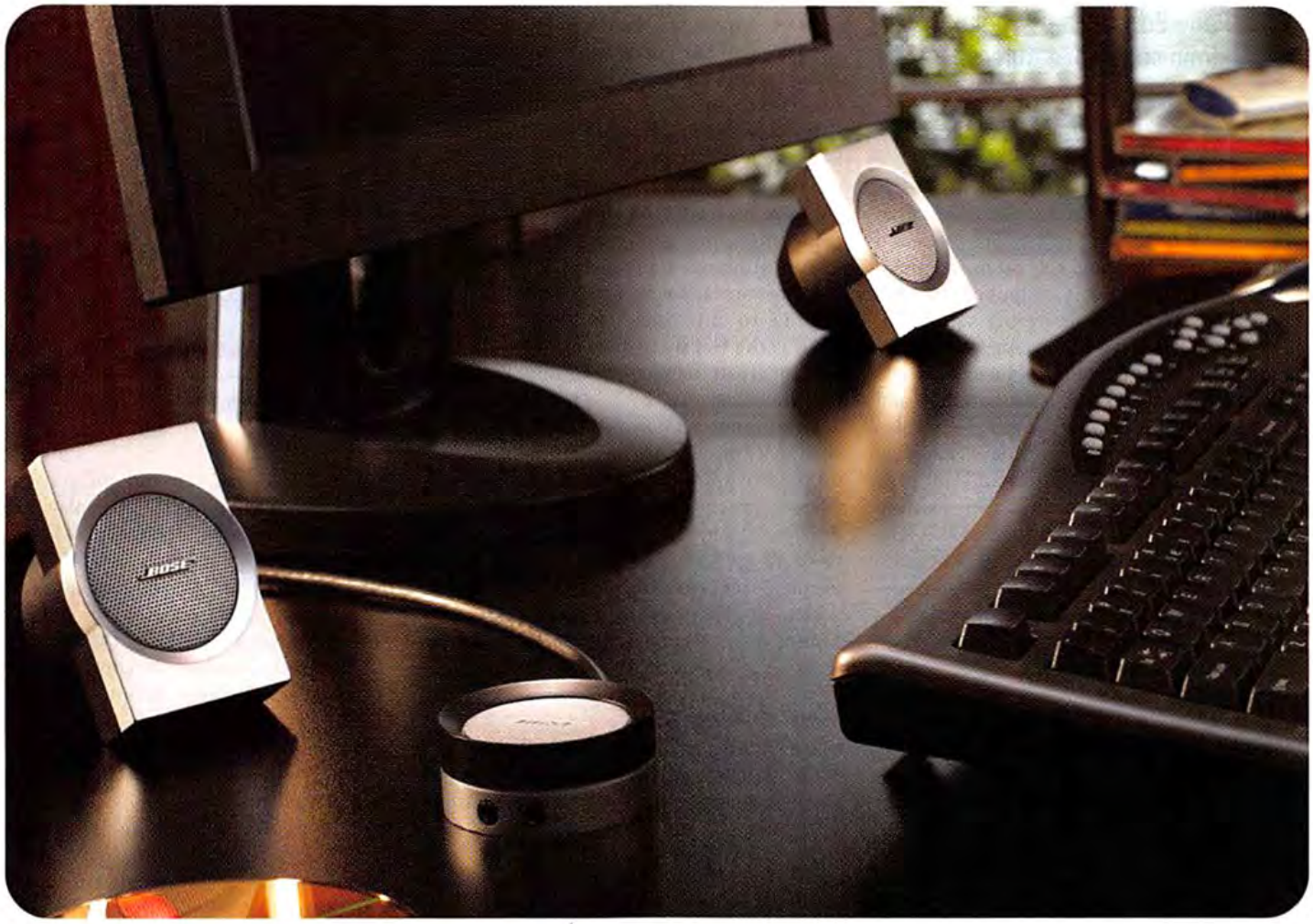
PROS: Superb mix of editing features for beginners and experienced users alike; good raw support; powerful new retouching tools.

CONS: Online help can be sketchy and doesn't work on non-administrator accounts; Palette Bin takes up too much screen space; annoying registration alerts.

PRICE: $90; upgrade from previous Elements and Photoshop LE versions, $70

COMPANY: Adobe Systems, www.adobe.com

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Contribute 3

Web-Page Editor Gains Speed, Tools, and Administrative Features

BY DAVID SAWYER McFARLAND

When Macromedia released Contribute 2 (★★★★½; November 2003) last year, Mac users finally had a simple Web-page editor that novices could use to update Web sites and that Webmasters could rely on for administration. Contribute 3 is a significant evolution of the product, delivering substantial performance improvements, support for current Web-design techniques such as layouts based on Cascading Style Sheets (CSS), and expanded administrative controls. It also costs $50 more than the previous version.

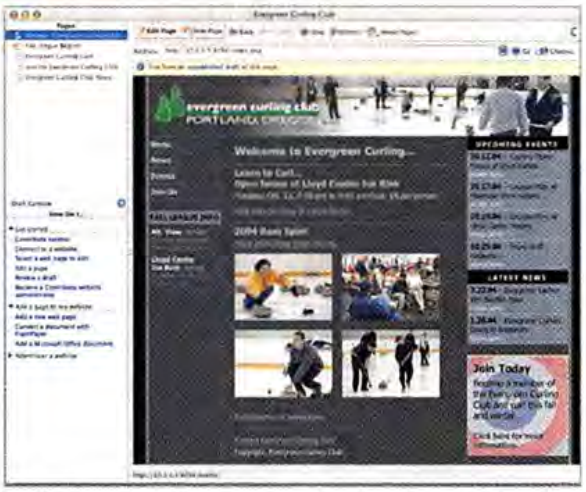
Contribute is a straightforward Web-page editor designed for maintaining existing Web sites; it is not a full-featured Web-site–construction tool. It enables users who don't necessarily build Web sites—administrative assistants, instructors, or marketing teams—to edit pages and add pages to an existing Web site, without any assistance from the Webmaster.

Better Performance

While Contribute 2 was often slow, Contribute 3 retrieves and publishes pages significantly faster by caching many of the files that Contribute 2 transferred via FTP. Plus, version 3's support for WebDAV—the protocol for connecting to .Mac—makes editing .Mac Web sites faster.

Retrieving and publishing files with Contribute 3 isn't instantaneous. You must wait to connect to a site, download a page for editing, and then publish it, although the process is quicker on a local network. Adding to the time commitment is the fact that you cannot edit or create new pages while files transfer.

Contribute 3 improves upon version 2, though, by providing support for advanced Web-page design using CSS—a timely move since more and more sites are abandoning table-based designs in favor of CSS-based layouts. Where Contribute 2 frequently displayed CSS layouts as a hard-to-edit mess, Contribute 3 does an admirable job of rendering CSS and allowing you to edit designs in WYSIWYG mode.



Look, Ma—No Tables Contribute 3 makes editing CSS-based layouts, such as this table-free design, a breeze.

More Editing Tools

Contribute 3 also introduces a built-in image editor that lets you scale, crop, rotate, and sharpen images, and adjust their brightness and contrast. You can add images, resize them, and prepare them for display on the Web. Plus, you can integrate QuickTime and other movie formats such as WMV (Windows Media Video) files directly into a Web page. Launching a program such as Bare Bones Software's BBEdit (★★★★; March 2003) or Macromedia's Dreamweaver (★★★½; January 2004) allows people who know HTML to edit source code, an option that an administrator can disable.

Keeping Control

In some ways, Contribute is aimed more at Webmasters than at Web-page editors. It lets anyone in charge of a Web site pass the tedious job of Web-site updates to others. Contribute 3 builds on the program's already impressive administrative tools: you can designate which pages are editable, who can edit them, what parts they can edit, and the placement of graphics and movies.

Macworld's Buying Advice

The $50 increase from version 2 makes Contribute 3 rather pricey if you're using it exclusively to update a .Mac site, but current users who upgrade will benefit from its improved performance, editing tools, and administrative control. And if you're a Webmaster whose e-mail box is flooded with requests for simple site updates, utilizing Contribute 3's powers within your organization will efficiently free up your time, yet allow you to maintain tight control over your Web site. □

RATING: ★★★★

PROS: Improved speed; advanced CSS support; built-in image editing; powerful administrative controls.

CONS: $50 more expensive than the previous version; no printed manual; can't work on other pages during Web-page transfers.

PRICE: single user, $149; six-license pack, $699; upgrade, $79

COMPANY: Macromedia, www.macromedia.com

www.InsideMacRadio.com

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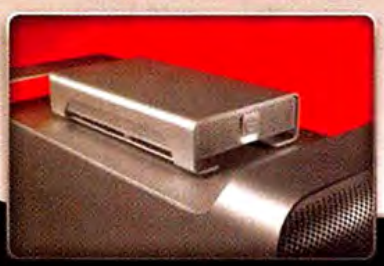


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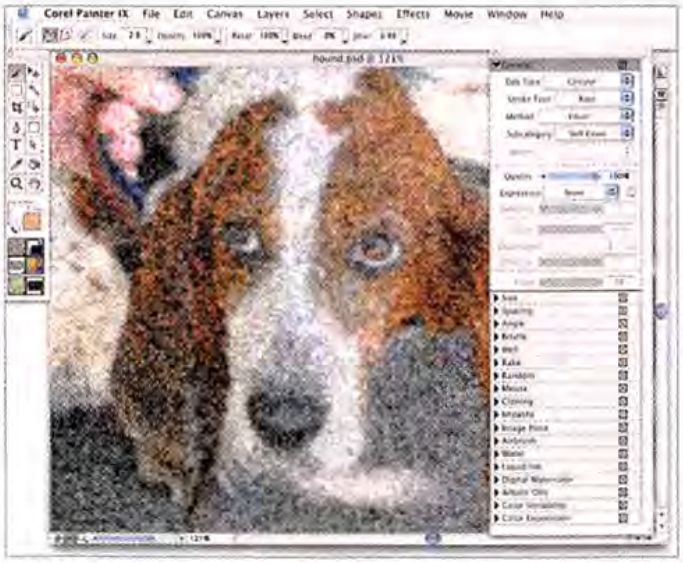
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Painter IX

Changes to Interface and Brushes May Justify High Upgrade Cost

BY BEN LONG

What Adobe Photoshop is to image editing, Corel Painter is to digital painting. Sure, you can paint with Photoshop's brushes, but Painter lets you paint with other tools and even use virtual papers that mimic their real-world counterparts. The latest release continues the tremendous interface improvements that began with version 8 (4½; August 2003) and adds some cool new painting tools. Unfortunately, Corel has set the upgrade price fairly high, so upgrading may not be a slam-dunk decision.



Find That Brush Painter IX's new Brush Control palette (on the right-hand side of the screen) consolidates every brush parameter into a single repository.

Interface Version IX

Painter IX's interface is mostly unchanged from that of version 8. The interface's main hurdle has always been the organization of its huge assortment of brushes and tools. While version 8 did a lot to streamline brush selection, Painter IX provides the best solution yet. Where previous releases spread brush parameters among several palettes and toolbars, the new Brush Control palette provides a single repository for every brush parameter. After the Brush Control palette, the biggest interface improvement is the new keyboard-shortcut feature, which allows you to completely customize Painter's keyboard controls—a needed addition that lets you select tools much faster.

Version IX includes lots of other interface tweaks. The Tracker palette, which stores a copy of every custom brush you've made, now works even after you've saved and reopened a document. Though the Tracker palette is handy, Painter would be better served by a more robust undo feature, perhaps something like Photoshop's History palette.

The experienced Painter user is likely to notice version IX's improved performance. Brushes now easily keep up with your mouse, and paint flows without skipping.

Oil Dependency

While version 8 saw a complete rewrite of Painter's underlying brush engine, version IX gives special treatment to Painter's oil-brush tools. The new Artists' Oils brush behaves much more like a real oil brush than tools in previous versions. It holds a finite amount of digital paint, so your stroke lightens and thins as you brush, giving you more control over the mixing of tints and hues on the canvas.

For further oil-paint realism, a new oil Color Set includes digital counterparts to real-world oil colors. And Painter's Mixer palette has been updated to work with the new oil tools, so you can smear and mix oil paints just as you would on a real palette.

My favorite new painting feature is the Snap-to-Path facility. Painter has had good vector tools for a long time, and the new Snap-to-Path option lets you force a brush-stroke to follow any predefined vector path. This is a great idea that makes it easy to create precision strokes.

Other improvements include watercolors that stay wet from session to session, rather than drying when you close a document, and a new Quick Clone feature that renders clones of photos much faster than previous versions did. Despite its new features, we were disappointed that Painter still lacks support for 16-bit color. This isn't a deal breaker by any means, but it needs to happen someday.

Macworld's Buying Advice

There's a lot to like in Painter IX. Corel is doing an excellent job with the program's interface, and the new features are well conceived and well executed. The $229 upgrade price is steep, but if you live or die by the digital brush, the upgrade is worth the money.

RATING: 4½

PROS: Dramatically better performance than that of previous versions; interface improvements; excellent Snap-to-Path feature; sophisticated new oil brushes.

CONS: No 16-bit–color support; weak history feature; steep upgrade price.

PRICE: $429; upgrade, $229

COMPANY: Corel, www.corel.com

Quicken 2005

Premier Personal Finance App Adds iPhoto Integration and Excellent Account Setup for New Users

BY JEFFERY BATTERSBY



There's no better application than Quicken for managing your personal finances. With a slew of features that let you track everything from how much money you spend on Pop-Tarts to your current net worth or how much you've racked up in ATM fees, Quicken can tackle the ordinary, the unusual, and everything in between.

As is often the case with applications that already seem to do everything, there's little in the latest release that will entice existing users to upgrade. But if you're still balancing your checkbook with a pen and a calculator, Quicken 2005 has just made it much easier to move to digital accounting.

Fast Account Setup

Before this version, the bane of any new Quicken user's existence was the account setup process, which required that you collect all your bank statements and manually enter past transactions to bring your Quicken checkbook up-to-date. With this release, setting up accounts is as simple as clicking on a button, as long as your bank is one of the more than 1,100 banks that support Quicken. Using the New Account Assistant feature, I was able to select my bank, choose each of the bank accounts that I wanted to track in Quicken—eight in all—and import all my banking information in less than five minutes. (Note that the New Account Assistant feature requires a subscription to your bank's online banking system, which may result in a service fee.)

There were some minor tasks to do: I had to categorize each of the imported transactions and change the payee information on some paper-check transactions. But, overall, the account setup process was completely painless, and all future updates can be set to download automatically.

Plans for the Future

Unless you were filing a 1040 EZ form, previous versions of Quicken's tax planner were fairly limited when it came to predicting your future tax liability. Quicken 2005 now includes several improvements that make it easier to estimate your taxes, especially if you have a home business (Schedule C) or a variety of capital gains (Schedule D) and losses. However, while

the program does allow for entering more-detailed information, Quicken's tax planner is no substitute for a trip to the accountant, especially if your tax situation is even a little bit complicated.

When it comes to budgeting, Quicken still keeps the process simple. Use the Quick Budget feature, and Quicken will look at all the transactions you've entered and create a budget for you based on your current spending. You can then easily adjust your budget by entering or changing dollar amounts according to what you really want them to be. Once your budget information is entered, Quicken's budget report will compare your actual expenses to what you intended to spend.

Housekeeping

Another of Quicken's new features is the redesigned Home Inventory application, accessible from within Quicken. This program lets you create a detailed list of all the important items you own, so you can track their purchase prices, current value, replacement costs, and serial numbers, and whether they're covered by your insurance policy. You can also drag photos from your iPhoto library to any database item, and create a detailed photo catalog of your possessions.

For all you neatniks, Intuit has made it easier to remove unnecessary categories from the program's extensive list. Once you've assigned categories to your existing transactions, simply select Remove Unused Categories from the Lists menu, and Quicken will remove all the categories that you don't use.

In a past review, we mentioned that Quicken 2004 (★★★★; April 2004) had a bug in the way it reported capital gains when you short-sold stocks. We're pleased to report that this issue has been remedied. The program no longer misreports capital gains. If you're currently using Quicken to track stock transactions, you'll want to make the upgrade.

Macworld's Buying Advice

There's little in Quicken 2005 that will make it a must-have upgrade for all current Quicken users. But if you're just starting to loosen your grip on your paper check registers, Quicken's new account setup process has made the move to digital finance tracking much easier. In the end, Quicken remains the hands-down best way to track your personal finances. □

RATING: ★★★★
PROS: Incredibly easy account setup for new users; better Home Inventory app integrated with iPhoto.
CONS: Very similar to the last two releases of the program.
PRICE: $60; upgrade, $49
COMPANY: Intuit, www.intuit.com

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You Control: Fonts 1.1

Versatile Utility Puts a WYSIWYG Font Menu at Your Fingertips

BY TERRI STONE

Of the colorful names my *Macworld* coworkers call me, "type geek" is my favorite. So it's no surprise that I love You Control: Fonts 1.1.1, a utility from You Software that adds a WYSIWYG font menu to the OS X menu bar. But the $30 You Control: Fonts will appeal to all Mac users whose taste for type goes beyond the basic Times Roman.



Putting a Name to a Face Regardless of the application you're in, you access the You Control: Fonts menu from the same location in OS X's menu bar.

Even the font menus in programs for graphics professionals, such as QuarkXPress and Adobe Photoshop, use one bland typeface to represent both Housearama-LeagueNight and Gill Sans Ultra Bold. If you have more than a few specialty typefaces, remembering their nuances and choosing the right one for each occasion can be difficult. You Control: Fonts makes your choice easier by displaying the name of every font in its own typeface.

You determine the font menu's complexity; for example, you can show all available fonts divided by family, recently used fonts, or font format type.

You can control the font preview size—a plus for people who squint at the default 12-point type. You can also set as many as four additional display sizes that appear when you mouse over a fly-out triangle. This size array is helpful when your preview point size is relatively small but you're searching for typefaces that display well at much larger sizes. You can quickly apply any of those sizes to selected text in a supported program (including QuarkXPress 6.X; Adobe Photoshop CS, Illustrator CS, and InDesign CS; Macromedia Flash MX and FreeHand MX; Microsoft Word v. X and Word 2004; Microsoft PowerPoint 2004; and Apple Keynote).

Another feature that cuts down on typing is the ability to choose a hot-key combination that, when pressed, places the You Control: Fonts menu at your cursor.

Because I have a large font library, there was a lag of a few seconds between the moment I clicked on the You Control: Fonts menu and when the WYSIWYG menu appeared. To shorten the delay, You Software suggests that you group fonts in OS X 10.3's Font Book and then deselect You Control: Fonts' Show Fonts and Inline options in the program's preference pane. While this workaround does the job, the time it takes to group fonts is irritating.

Macworld's Buying Advice

Because Extensis's Suitcase and Font Reserve type managers have WYSIWYG preview panes, some people may feel that You Control: Fonts 1.1.1 is unnecessary. But I find that its accessible, customizable menu and hot-key shortcut time-savers are worth more than its price. □

RATING: ♦♦♦♦

PROS: Easily accessible WYSIWYG font menu; hot-key shortcut.

CONS: Slow when accessing large font libraries.

PRICE: $30

COMPANY: You Software, www.yousoftware.com





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*The capacity figure provided by Jon Peddie Research. For details see jonpeddie.com

Griffin RadioShark

Great White USB Device Lets You Record and Pause Live Radio

BY JASON SNELL

Griffin Technology's much anticipated RadioShark is a USB-based radio that not only feeds audio into your Mac, but also allows you to time-shift, pause, and record live radio broadcasts—it's essentially a TiVo for any local AM or FM radio station. If you've been waiting for the RadioShark, you'll be happy to know that it works as advertised, though its software could use quite a bit of refinement.



Tune In RadioShark lets you listen to any local radio station, as well as pause and rewind it.

The Shark

The RadioShark combines a hardware radio receiver and a software application. The receiver is a 7-inch-tall, shark-fin–shaped device. When you plug the RadioShark into your USB port, three blue lights in the shape of gills or radio waves are faintly illuminated. On the back is the RadioShark's white USB cable and a headphone jack that doubles as an external antenna plug.



In testing at the *Macworld* offices and a few *Macworld* staff members' homes, we found the reception to be decent, though not quite as good as a quality radio's. However, since radio reception is so variable, we can't vouch for what the reception would be like at your home or office.

The Software

To be honest, the concept of a USB radio isn't very interesting. What makes the RadioShark more intriguing is its included software.

The main RadioShark application's interface is a metallic, iTunes-style window. A slider along the top lets you change frequencies, and a second slider lets you adjust the volume. Buttons allow you to switch bands and find the next strong signal. Most important, if you click on the Rec button, the RadioShark starts recording what you're listening to. To schedule a recording for a particular station at a particular time, or to play back those recordings, click on the Sched button. Clicking on the TS button slides out a drawer, below the main window, containing "time-shifting" playback features that let you pause and rewind the live broadcast in case you need to step away from your Mac or want to listen to something a second time.

Scheduling a recording with RadioShark is fairly straightforward, though not as easy or elegant as it could be. For example, the application can display time in either 12-hour or 24-hour clock mode. You can toggle the AM and PM options in 12-hour

PHOTOGRAPHY BY PETER BELANGER

THE CONQUEST

DiskWarrior is Now OS X Native

It's the indispensable utility that repairs problems such as disks that won't mount, files you can't trash, and folders that have disappeared. MacUser magazine said, "It's the fastest and safest data recovery utility you can buy."

Macworld magazine said, "DiskWarrior is by far the best disk utility available for the Mac; it can repair virtually any disk problem you may encounter...and it is likely to become the only tool you'll want to keep with you at all times."

David Coursey, ZDNet AnchorDesk, agrees in an article comparing disk utilities. He used it to fix a disk that no other utility could. "DiskWarrior is a great product, not just because it fixed a pretty serious screw-up, but because it showed me what it planned to do in minute detail before doing it."

But disk damage isn't the only threat to your data. As hard drives get older, the drive mechanisms

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mode, but to do so, you need to click on *AM* or *PM*. We barely noticed this because there are no check boxes or other tip-offs that denote these as changeable options. Despite the annoyances, I was able to schedule recordings rather easily.

You can schedule repeating recordings, too. Recordings can repeat hourly, daily, weekly, on weekdays, or on weekends. I do wish that repeating recordings could be set at other specific intervals, such as every half hour.

Once you've set a recording time, you can give your scheduled recording a name, choose which station RadioShark should record, and select what audio format you'd like to have your recording saved in. Right now, the only options are AIFF and AAC. With AAC, you can record at one of five different bit rates, from 64 to 320 Kbps, and at one of three different quality settings.

You can play back recorded items from within RadioShark's scheduling window, but an easier way is to set the program's preferences to automatically add your recordings to iTunes, in a special RadioShark playlist. The downside here is that final recordings are not labeled in a helpful way: our recordings of a radio show called *Forum* showed up as Forum 1, Forum 25, and so on.

RadioShark's time-shifting features work as advertised. You can listen to music and then switch to news for 30 minutes—and still listen to what you missed on the music station when you switch back. The size of the recording buffer is completely configurable (as long as you have enough hard-drive space), and you can also configure just how many seconds to jump when you click on the Rewind and Forward buttons—a 15- or 30-second skip works great for ignoring ads.



On Schedule With some minor irritations, you can schedule recordings of your favorite radio shows.

RadioShark is actually two different applications: the interface application and a background application. That means you can quit the RadioShark program and it will still grab your scheduled recordings. However, you must leave your Mac on for this to work. And if you select the Accumulates When Closed preference, RadioShark will even continue to record the live-radio buffer while the app is closed.

People who were excited by last year's RadioShark announcement, take note: at the time, Griffin claimed that the product could record Internet radio, but that feature didn't actually make it into the final, shipping version.

Macworld's Buying Advice

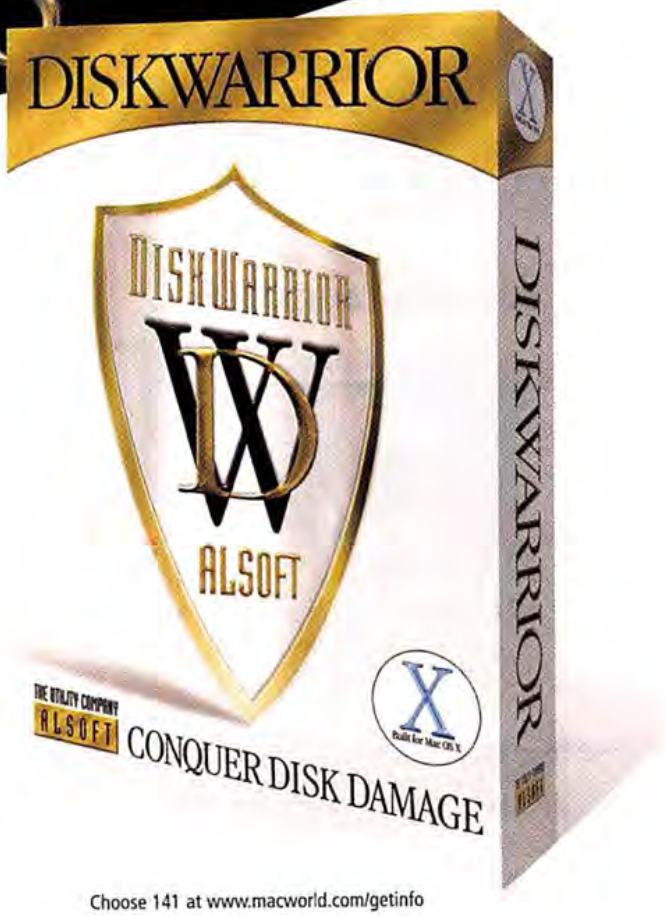
The RadioShark is what it is—a USB radio that lets you time-shift and pause live radio, and record what you're listening to. Its software could use more polish, but for NPR addicts, dittoheads, sports fiends, or anyone else who enjoys the cornucopia of options on the airwaves, the RadioShark delivers the goods. □

RATING: ★★★½
PROS: Brings TiVo-like time-shifting and pausing features to radio; good iTunes integration.
CONS: Average-quality radio reception; somewhat clumsy scheduling interface.
PRICE: $70
COMPANY: Griffin Technology, www.griffintechnology.com

CONTINUES

begin to malfunction. Eventually, the malfunctions become so severe that the drive simply stops working. DiskWarrior can automatically test for hardware malfunctions, giving you the chance to back up your data before it's too late.

Be prepared. Don't wait until after you have a disk disaster to buy your copy of DiskWarrior. Bob LeVitus, aka Dr. Mac, said, "I feel naked without DiskWarrior." You can believe MacHome magazine when they said, "DiskWarrior is a quick, one-click solution to faster, more stable hard drives."



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●●●●½ MultiSync LCD1960NXi ($729), from NEC (www.necmitsubishi.com); October 2004; find.macworld.com/0081

17-INCH DISPLAY

●●●● SyncMaster 172X ($539), from Samsung (www.samsung.com); October 2004; find.macworld.com/0081

FLATBED SCANNERS

MIDRANGE SCANNER



●●●●½ CanoScan 9950F ($400), from Canon (www.canon.com); find.macworld.com/0188

LOW-END SCANNER

●●●● CanoScan 8400F ($150), from Canon (www.canon.com); find.macworld.com/0187

COLOR LASER PRINTERS

●●●● LaserJet 2550Ln ($599), from Hewlett-Packard (www.hp.com); find.macworld.com/0083



●●●●½ C510n ($1,019), from Lexmark (www.lexmark.com); June 2004; find.macworld.com/0084

DV CAMCORDERS

●●●●½ Optura 40 ($999), from Canon (www.canon.com); November 2004; find.macworld.com/0130

●●●● PV-GS200 ($999), from Panasonic (www.panasonic.com); November 2004; find.macworld.com/0130

●●●● DCR-PC109 ($899), from Sony (www.sonystyle.com); November 2004; find.macworld.com/0130

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PORTABLE FOR GENERAL CONSUMERS



●●●●½ 12-inch iBook G4/1.2GHz ($999), from Apple Computer (www.apple.com)

We've always appreciated the entry-level iBook's compact size and relatively low price. Apple's $100 price cut and included AirPort Extreme card make it a better value than ever (page 28). find.macworld.com/0207

PORTABLE MAC FOR PROS



●●●●½ 12-inch PowerBook G4/1.33GHz with SuperDrive ($1,799), from Apple Computer (www.apple.com)

Our favorite of the four PowerBooks we reviewed, the 12-inch PowerBook G4 packs a lot of power into a compact, elegant case (July 2004). find.macworld.com/0088

DESKTOP MAC FOR GENERAL CONSUMERS



●●●●½ 20-inch iMac G5/1.8GHz ($1,899), from Apple Computer (www.apple.com);

Elegant, all-in-one design melds a speedy G5-based system—complete with a 160GB hard drive and a SuperDrive—with a big, bright LCD screen. Our only complaint: Not enough RAM (December 2004). find.macworld.com/0183

DESKTOP MAC FOR PROS



●●●●½ Power Mac G5/dual-2.5GHz ($2,999), from Apple Computer (www.apple.com)

We think the clear speed advantage, huge memory limit (as much as 8GB) and hard-drive capacity (it comes with a 160GB Serial ATA drive) of this Mac makes it well worth its price (December 2004). find.macworld.com/0208

NEW: DIGITAL CAMERAS



7.1 MEGAPIXELS

●●●●½ **PowerShot G6** ($699), from Canon (www.canon.com); January 2005; find.macworld.com/0206



7.2 MEGAPIXELS

●●●● **Cyber-shot DSC-P150** ($499), from Sony (www.sonystyle.com); January 2005; find.macworld.com/0206



8-MEGAPIXELS

●●●● **C-8080 Wide Zoom** ($999), from Olympus (www.olympus.com); September 2004; find.macworld.com/0091

Top Products are those we've recently reviewed in a comparison of like products. As new products become available, we will update the list. For longer reviews of these products and for other product recommendations, go to www.macworld.com/reviews.

IN THE MACWORLD LAB

Hardware Products We Tested This Month

●●●● 20-inch Cinema Display ($1,299), from Apple (www.apple.com)



The 20-inch Cinema Display may cost a bit more than other 20-inch LCDs, but its slim, aluminum case; great image quality; and standard digital connectors will have folks lining up to buy it. find.macworld.com/0199

●●●● Exilim EX-P700 ($599), from Casio (www.casio.com)



This 7.2-megapixel camera has a stylish black finish, a live RGB histogram, and an excellent help system. It's a great camera for beginning enthusiasts to grow into, but professionals looking for a second camera will be disappointed with its image quality and absence of RAW support. find.macworld.com/0203

●●●● PhotoSmart 2710 ($399), from Hewlett-Packard (www.hp.com)



You can print, copy, scan, and fax from this full-featured ink-jet all-in-one—and you can do it all wirelessly! You can also print good-quality 6-ink photos after installing a $25 optional photo-ink cartridge. find.macworld.com/0200

●●●● SyncMaster 213T ($999), from Samsung (www.samsung.com)



This 21.3-inch, analog and digital (or dual-mode) LCD with 1,600-by-1,200-pixel resolution can pivot and display very good text and graphics. It comes at a reasonable price. find.macworld.com/0201

- Vendetta Online
- F/A-18 Operation Iraqi Freedom
- Doom 3
- Torus Trooper

The Game Room

Being the pilot of a cargo freighter in deep space is tough. Sure, you get to travel to new worlds and meet interesting people. But you also run the risk of being gunned down by pirates, getting trapped in an ion storm, and worse. It's all part of a day's work in Vendetta Online, a massively multiplayer online role-playing game (MMORPG) by Guild Software.



Space Cowboy Haul cargo or blast pilots in Vendetta Online, an online role-playing game set in outer space.

Unlike the majority of MMORPGs, such as EverQuest (which has you running around and killing rats to earn your street cred), Vendetta Online turns you into the pilot of a lowly cargo freighter with limited firepower, limited storage capacity, and slow engines. Each time you dock at a station, you can check the mission computer for worthwhile contracts. You choose the missions you want to take: you can ferry needed parts and supplies to distant systems and sell them on the open market, or you can accept special missions that reward you with a bit of extra money. The greater the risk, the greater the reward—industrial espionage and reconnaissance pay well, but there's always danger lurking beyond the next asteroid.

As you make money, you can upgrade to more-powerful vessels—which will be useful whether you choose to become a merchant captain, moving big goods between systems, or an interstellar pirate, preying on the weak and unsuspecting.

Despite the game's complex interface, I didn't have too much trouble picking up the basics of moving around and controlling my ship. I recommend that new players run through the game's tutorial missions, which teach the fundamental rules of movement, combat, and trading. Once you're done, it's largely up to you to explore the systems and make money for yourself.

VENDETTA ONLINE
RATING: ♦♦♦♦
PROS: Neat twist on the MMORPG genre; free trial period.
CONS: Daunting interface requires careful attention to tutorials; Nvidia graphics bug on Macs.
PRICE: free (download) or $30 (boxed version), plus $10 monthly service fee
COMPANY: Guild Software, www.vendetta-online.com

Thousands of players can interact simultaneously in Vendetta Online—however, as I write this, it rarely has more than a few hundred users at a time. Low turnout won't interfere with your game, though, since there are plenty of computer-controlled ships flying around. Also, you can pick up new missions whenever you want. But don't take too long to complete your missions. As other players shift cargo between stations, the mission rosters and the value of the cargo will change. You may find yourself stuck with a useless haul if you're not careful. (I recommend unloading cargo between plays if you can, since you'll notice these changes most dramatically if you go a few days between outings.)

The game's 3-D graphics aren't cutting-edge, but they do the trick for a shared, collaborative, online world set in outer space. And although sound effects are fairly simple, the soundtrack is varied enough to keep things interesting.

Vendetta Online requires a monthly fee, which helps offset maintenance and development costs. Plans start at $10 per month (price breaks for long-term subscriptions are available). You can download the game for free; the download version includes an eight-hour trial period. The boxed copy costs $30; it includes Mac, Windows, and Linux versions, and it comes with a printed manual and one free month's worth of play.

The game requires a 1GHz processor or better and 348MB of RAM. As I reviewed Vendetta Online, the game was still having trouble quitting on Macs with certain Nvidia graphics cards, and Guild Software was working on the problem. The game automatically downloads new patches when you connect.

The Bottom Line If you prefer pulp sci-fi novels to *The Lord of the Rings*, Vendetta Online is the

continues

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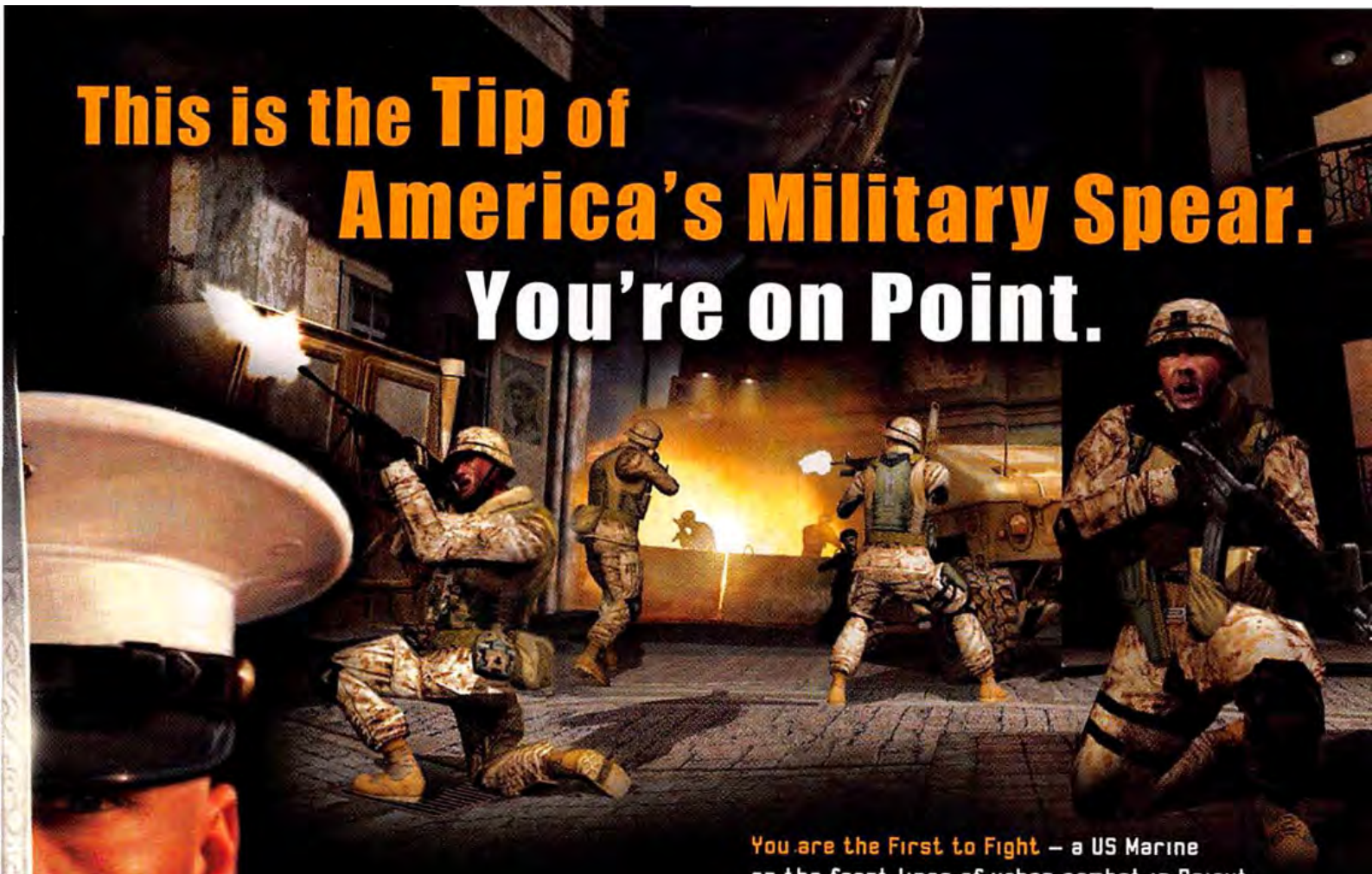
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MMORPG you've been waiting for. And unlike many Windows-first MMORPGs, this one puts Mac, Linux, and Windows players on a level playing field.

Armchair Pilots

If watching news coverage of the Iraq war isn't enough for you, Graphsim Entertainment can help you feel like you're part of the action—albeit from the safety of your office chair. In F/A-18 Operation Iraqi Freedom, the company has repurposed its jet-fighter flight-simulation game to put players in the skies over Iraq.

The game offers an abundance of flight missions, which are as varied as the roles performed by the F/A-18 Hornet—everything from close-range air support to dropping guided missiles or bombs miles away. Flying can sometimes be a lonely experience. The game's missions aren't as action-packed as barnstorming in a biplane or dogfighting Zeros in a Hellcat, for example. By far, the most challenging aspect of this sim is landing your F/A-18 on the deck of an aircraft carrier. It's a harrowing experience at the best of times—let alone if you're having any system failures caused by battle damage.



Pilot Light The mission editor in F/A-18 Operation Iraqi Freedom lets you pursue your own goals.

One thing that I found disappointing was the game's mission-selection system. Instead of a campaign-based mission system—which requires that you complete specific missions before you can take on more-challenging assignments—Operation Iraqi Freedom has a linear mission selector. So you can play (or replay) any mission you want without completing other tasks first. Although this system gives you the flexibility to focus on specific tasks, I found that it also drained some of the challenge and sense of accomplishment from the game. However, Operation Iraqi Freedom does rank you on the success of your mission and whether you (and your plane) get back in one piece.

If you're playing with a joystick, I highly recommend downloading the beta patch from Graphsim's Web site. It greatly improves joystick performance; without it, you might tear your hair out in frustration.

If you're playing on hardware that supports a wide-screen aspect ratio—such as an iMac, a PowerBook, or an Apple Cinema Display—you're bound to run into another problem. The game doesn't support those products' resolutions—so graphics appear stretched. It doesn't make the game unplayable, but it is annoying.

The game provides more than 160,000 square miles of terrain generated from satellite imagery, so you'll see realistic coastlines, desert, and mountain ranges. For the most part, the game's OpenGL effects look nice—although details are less spectacular when you get up close. The game adds to the realism by incorporating atmospheric effects including sun, clouds, fog, and haze.

If you've played Graphsim's earlier F/A-18 simulation, you won't find a lot of new challenge in this one. Its graphics have improved and its setting is Iraq, but this is largely the same game you've played before. To help shake things up, the game does include a mission editor that lets you build your own challenges. You can also dogfight against other F/A-18 pilots over a LAN or an Internet connection.

The Bottom Line Graphsim's F/A-18 Operation Iraqi Freedom gives players a taste of American military action over the skies of Iraq. But experienced virtual F/A-18 pilots will likely find little challenge here.

F/A-18 OPERATION IRAQI FREEDOM
RATING: ▮▮
PROS: Mission editor; multiplayer support.
CONS: Not much is new for experienced F/A-18 sim pilots; no support for wide-screen displays.
PRICE: $30
COMPANY: Graphsim Entertainment, www.graphsim.com

Down the Rabbit Hole

Kenta Cho is a spectacularly talented game programmer who breathes new life into classic arcade games by fusing swirling shapes and colors with a stark, simple aesthetic. His latest creation, Torus Trooper, is a new take on the classic game Tempest.

continues

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FIRST LOOK | Doom 3

In February, Aspyr Media plans to release the Mac version of Doom 3, a gory, terrifying, and visually spectacular first-person shooter that may keep you awake long after you've finished playing.

Although Doom 3 is, at its most basic level, a retelling of previous Doom games, there's nothing stale about the new version. Whereas previous installments were simple run-and-shoot affairs, Doom 3 offers improved storytelling, stunning graphics, and a host of new tricks.

In Doom 3, you're a marine sent to a human colony on Mars where strange things are happening. You'll learn about what's going on by downloading data to your trusty PDA, watching news reports, and listening to the conversations of those around you. Pay attention, because you'll pick up some good tips.

As soon as you land, all hell breaks loose—quite literally. A chain of events opens a gateway to a dark dimension populated by hideous creatures beyond your worst nightmares—all with a taste for warm human flesh. You're alone in the dark, and it's up to you and your trusty arsenal of weapons to quell this demonic invasion.

Id Software sets new standards for graphics, lighting, and shadowing effects in this game. The depth of Doom 3's realistic effects is incredible. Facial and skeletal animation is more realistic than in any Mac game I've seen. And the lighting and shading effects are nothing short of spectacular.

Although you may be able to dial down the game's graphics and video settings so it runs on a G4 Mac, Aspyr recommends playing on a G5—this is the first time a Mac game has had such high system requirements. A beefy video card is also recommended, especially if you plan to turn up the effects.

Because you'll spend a lot of time in the dark, audio cues become terribly important in Doom 3. Id Software hasn't skimped at all on the sound effects, from the radio chatter of other marines, to the muffled screams of innocent victims being eaten alive, to the sickening wet slithering of a zombie trailing its own innards. Doom 3 will suck you in and, more often than not, make your skin crawl.

Doom 3 also sports robust multiplayer gaming, although I haven't yet been able to test these features. Aspyr promises that Mac and PC gamers will be able to play together online. I'll have more on this when I review the final version of the game.

Doom 3 isn't for everyone. If the idea of a terrifying walk in the dark while blasting the hell out of flesh-eating demons isn't your cup of tea, there's nothing for you here. But if you want to stay on the cutting edge of first-person shooters, Doom 3 is impossible to ignore—and lots of fun to play.

BETA TESTED

DOOM 3
PROS: Best graphics to date in a first-person shooter; truly frightening environment.
CONS: Unusually high system requirements.
PRICE: $50
COMPANY: Aspyr Media, www.aspyr.com

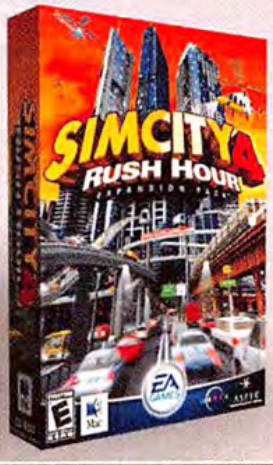


Hell Raiser Monstrosities such as this are the least of your worries in Doom 3.

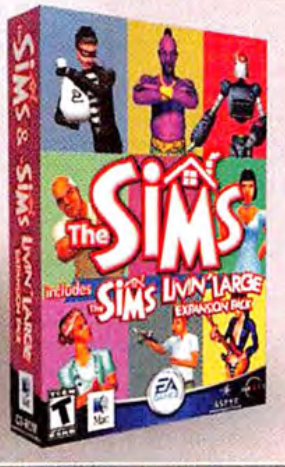
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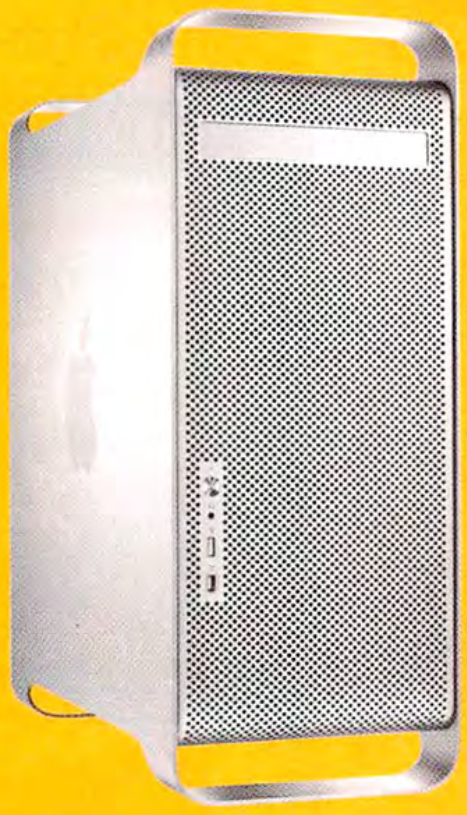


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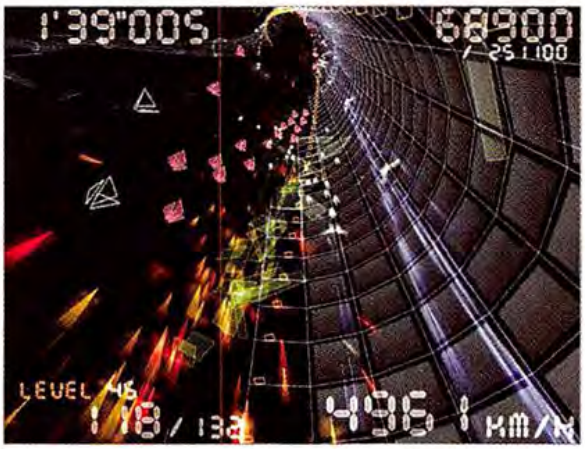
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† Or faster CPU. Subject to availability at time of drawing.

Torus Trooper builds on the concept behind Tempest, in which you blasted swarms of alien baddies as they crawled up the walls of a long well. In Torus Trooper, you're not stationed at the top of the well—you're constantly winding down it. And the well is endless. What's more, the walls shift and change. It's like riding a wave through a black hole filled with alien spaceships.



Riding the Tube Torus Trooper is a trippy retro game that borrows generously from classics such as Tempest.

In addition to using forward-facing weapons that spray your enemies with a hail of deadly gunfire, you can emit a charge shot. This superweapon takes longer to deploy, but it's far more destructive, cutting through gunfire to blow your enemy to smithereens. The more stuff your charge hits, the more points you'll rack up.

While you're fighting off wave after wave of enemy ships, you'll also have to contend with the clock, which starts its countdown the second you begin playing. When your time is up, the game is over. You can get extra time by destroying boss and miniboss ships—bad guys who are stronger and much more heavily armed than your average targets. And if all this gets too easy, you can up the challenge by switching difficulty levels, which include Normal, Hard, and Extreme. But don't expect any additional customization. Unlike the Windows version, which lets you choose to play in windowed mode or change other settings, the Mac version doesn't offer an obvious way to change any options.

The game's graphics are gorgeous, complex, and smooth as silk—though appreciating their geometric beauty requires a different aesthetic sense than, say, looking at the latest 3-D effects in a first-person shooter. It's part psychedelic and part cyberpunk. The game is also backed by a pumping electronic soundtrack that complements the stark yet lovely graphics.

You can download a free OS X version of the game. Don't be concerned that the Web page is in Japanese. Just click on the link under the Torus Trooper heading.

The Bottom Line Kenta Cho is one of today's best independent game programmers. You absolutely must give Torus Trooper a try. And don't be surprised if you find yourself coming back to it again and again.

TORUS TROOPER
RATING: ♦♦♦♦½
PROS: Distilled old-school game with a very modern twist.
CONS: Spartan instructions; nonexistent options.
PRICE: free
COMPANY: Kenta Cho, http://shinh.skr.jp/osxbin

MacCentral.com Senior Editor PETER COHEN can often be found in Vendetta Online piloting his Centaur between wormholes in the UIT systems.

Recently Reviewed

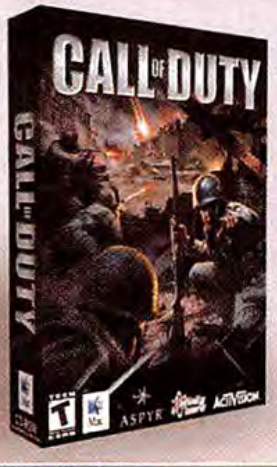
WORLD OF WARCRAFT

♦♦♦♦♦; Blizzard Entertainment, www.blizzard.com; $50 (plus $15 per month)

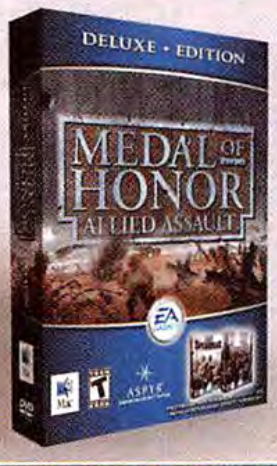
Blizzard Entertainment has finally released the long-anticipated MMORPG World of Warcraft, which I previewed in the July 2004 issue. And I'm happy to report that the finished game pleases on every level.

World of Warcraft offers just about everything you could want in an online world. You can set out on epic quests; discover a king's ransom in treasure, magic items, special weapons, and armor; and interact with a parade of player and nonplayer characters. Along your journeys, you'll come across beautifully crafted cities, each with its own architecture, and varied landscapes filled with interesting plants and animals—many of which want to feast on your flesh. What's more, Blizzard's developers have done a great job of making the Mac version every bit as beautiful as its PC counterpart.

The game costs $50 and requires a monthly service fee of $15 (less if you pay for more than a month at a time). This sort of recurring fee structure is par for the course in the MMORPG world. Your first 30 days are free, so make the most of them.

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Mac Gems

Photos are personal things—pictures of vacations, friends, family, or even the treasures we've decided to sell on eBay. But for people who make a living off of their photographs, use them for business purposes, or just want to make sure that other people don't appropriate them for nefarious purposes, making photographs available electronically requires taking some precautions.

Watermarking is a process by which you superimpose an identifying mark—a copyright notice, a business logo, a signature, or some text—onto an image, so its ownership is obvious. Although there are a number of ways to add watermarks to your digital images, I haven't seen a better solution than Script Software's $20 **iWatermark 2.0.3** (★★★★½; www.scriptsoftware.com). iWatermark's beauty is in its ease of use and its functionality. To apply watermarks to images, you simply drag a folder of images that you want to watermark (the Input folder) and another folder where you want to save the newly watermarked images (the Output folder) to the corresponding panels in the iWatermark window, and then click on the Process button. iWatermark leaves the original files untouched and creates new images complete with the watermark of your choice. (The new files retain EXIF and IPTC tags—a nice touch.) The process is fairly quick—for me, each image took less than a second.

Your watermark can be any image you want. Just drag it into the Image well, and you're done. But you don't have to stick with a standard image overlay; you can use text instead, or text and an image together. And you can completely customize the appearance of the watermark elements—location, justification, rotation, size, effect (emboss, outline, and engraved are a few options), transparency, and text font and style. A live preview shows what the resulting watermarked images will look like. You even get to choose the output format for watermarked images: support for JPEG, TIFF, PNG, PICT, and BMP is built in, and iWatermark can use QuickTime to save images in Photoshop format.



Prompt Prints PhotoBooth makes fast work of printing your photos.

iWatermark also has useful features for preparing images for a Web site. It can generate corresponding thumbnail images in whatever format and size you choose, and it can resize the watermarked images themselves—you just provide the appropriate dimensions. You can also resample images to a higher or lower resolution. Finally, iWatermark lets you create watermark sets that you can quickly switch between.

Watermarking used to be something that only professional photographers did, but nowadays everyone should at least consider it. And iWatermark is an inexpensive and impressive utility for the job.

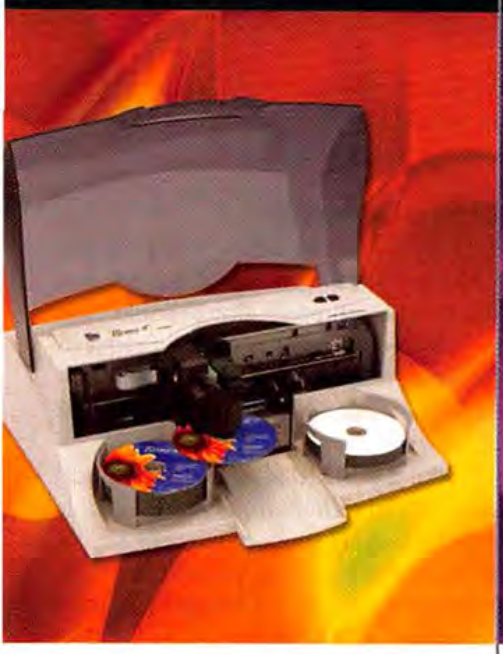
Picture Printing, Pronto

Speaking of photos, Apple's iPhoto is a stellar photo-management application. However, its printing functionality makes a big assumption: that you've already prepared all your photos for printing—that is, you've rotated them, cropped them, resized them, and so on. Assuming the picture is ready to go, you just click on the print button, choose the paper size, and then print. But what if you haven't done all that preparation? Or what if you want to print a cropped version of a photo but leave the original intact? (iPhoto always keeps an unaltered copy, but you have to remember to use the Revert To Original command to get it back.) Sometimes I just want to quickly print a new photo that I downloaded from my digital camera without worrying about "managing" it first.

Just as iWatermark lets you easily add watermarks to your photos, Stunt Software's $20 **PhotoBooth 1.2** (★★★★; www.stuntsoftware.com) makes printing photos quick and easy. When you launch PhotoBooth, you'll see all your iPhoto albums in a list on the left. Choose the photo you want to print by selecting the appropriate album (or your iPhoto library itself) and then the image—it will appear in the main viewer pane. (You can also choose images that aren't in iPhoto.) Now it's time to work your quick-print magic: Select a margin width, picture size, and orientation. You'll see the appropriate crop outline in the main viewer pane. Just as you would in iPhoto, you can move the crop outline to choose the desired section of the photo—but unlike with iPhoto, you can actually resize the crop as needed (it will keep the correct aspect ratio for your chosen picture size). Click on the Print Picture button, and the selected section of the photo prints at the desired image size. It's

continues

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that simple. A handy Preview window shows what your final printout will look like, depending on the chosen paper size and the printer you're printing to—a nice feature that's more helpful than you might think.

I'm sure there are some readers who are thinking, "I just don't get it—printing in iPhoto isn't that hard." You're right, it isn't. But printing in PhotoBooth is even easier. It takes printing only a few photos with PhotoBooth to appreciate its usefulness. It's a great utility that does exactly the job it's intended to do—and it does the job well.

iSight Settings

Even though Apple's iSight camera is widely considered one of the best videoconferencing cameras on the market, a common criticism is its lack of user controls for adjusting picture quality—you're stuck with the iSight's standard autofocus and autoexposure functionality. Although these features usually produce a good picture, many users would like to be able to adjust the iSight's focus, brightness, or color balance to improve the video they transmit to their iChat buddies.



iTouch-up With iGlasses, your iSight video looks better than ever.

Interestingly, this limitation has nothing to do with the iSight itself—Apple just hasn't provided a software interface for the iSight's built-in capabilities. But there are several third-party products that do just that; my current favorite is Ecamm Networks' $8 **iGlasses 1.1** (★★★★; www.ecamm.com).

After you install iGlasses, you get a new iGlasses Settings item in iChat's Video menu. Clicking on that item brings up a window with a number of iSight presets such as Sepia, Night Vision, and Macro Focus. Or you can customize a number of attributes—brightness, edge enhancement, exposure level, focus, gain, hue, saturation, shutter, temperature, and white balance—and save your settings to a new custom preset.

As a bonus, iGlasses allows you to use an iSight camera with iChat on Power Mac G3s that have processors slower than 600MHz—computers that are not officially supported by Apple for use with the iSight.

iGlasses won't turn your iSight into a studio-quality video camera, but it will significantly improve image quality. Now I just wish that I could get the people on the other end of my video chats to use it, too—sometimes they don't look so hot.

Mighty Mini Mouse, Part II

Back in September, I talked about the RadTech BT-500 Mobile Mouse (★★★★½), an excellent wireless mouse for Bluetooth-equipped PowerBooks and iBooks. That review generated a number of requests for a similar recommendation for Bluetooth-less laptops. I suggest BenQ's slick $40 **M310 Optical Wireless Mouse** (★★★★½; www.benq.com).

Like the BT-500, the M310 is an 800-dpi optical mouse featuring left and right buttons and a clickable scroll wheel, all of which are supported by OS X right out of the box. However, it gets its wireless functionality via an included RF (radio frequency) hardware receiver that plugs into any USB port. What sets the M310 apart from many other RF mice is that its USB receiver is stored inside the mouse itself. When you want to use the mouse, you press a button to make the receiver pop out (an action that also turns the mouse on). When you're done, you unplug the receiver from your computer and then slide it back into the slot on the mouse; this turns the mouse off. The M310's receiver is convenient and nearly impossible to lose during transit or storage.

BenQ claims that the M310 will run for more than three months on two AAA batteries under normal usage. I haven't yet reached the three-month mark, so I can't tell you how accurate that estimate is (or what "normal usage" means), but my batteries are still going strong after two months. To preserve battery power, the M310 sleeps after approximately 30 seconds of inactivity—it wakes up when you move the mouse—and turns off completely after 5 minutes of inactivity. A click of any button turns the mouse back on again, although it takes a few seconds before the cursor is responsive.

For people who are concerned about size, the M310 (unlike many RF mice) strikes a good compromise between portability and usability. It's 3.5 inches long, it's covered in hard rubber for a good grip, and it weighs less than 3 ounces.



Gadget Points You can store the M310's infrared receiver inside its body for safekeeping.

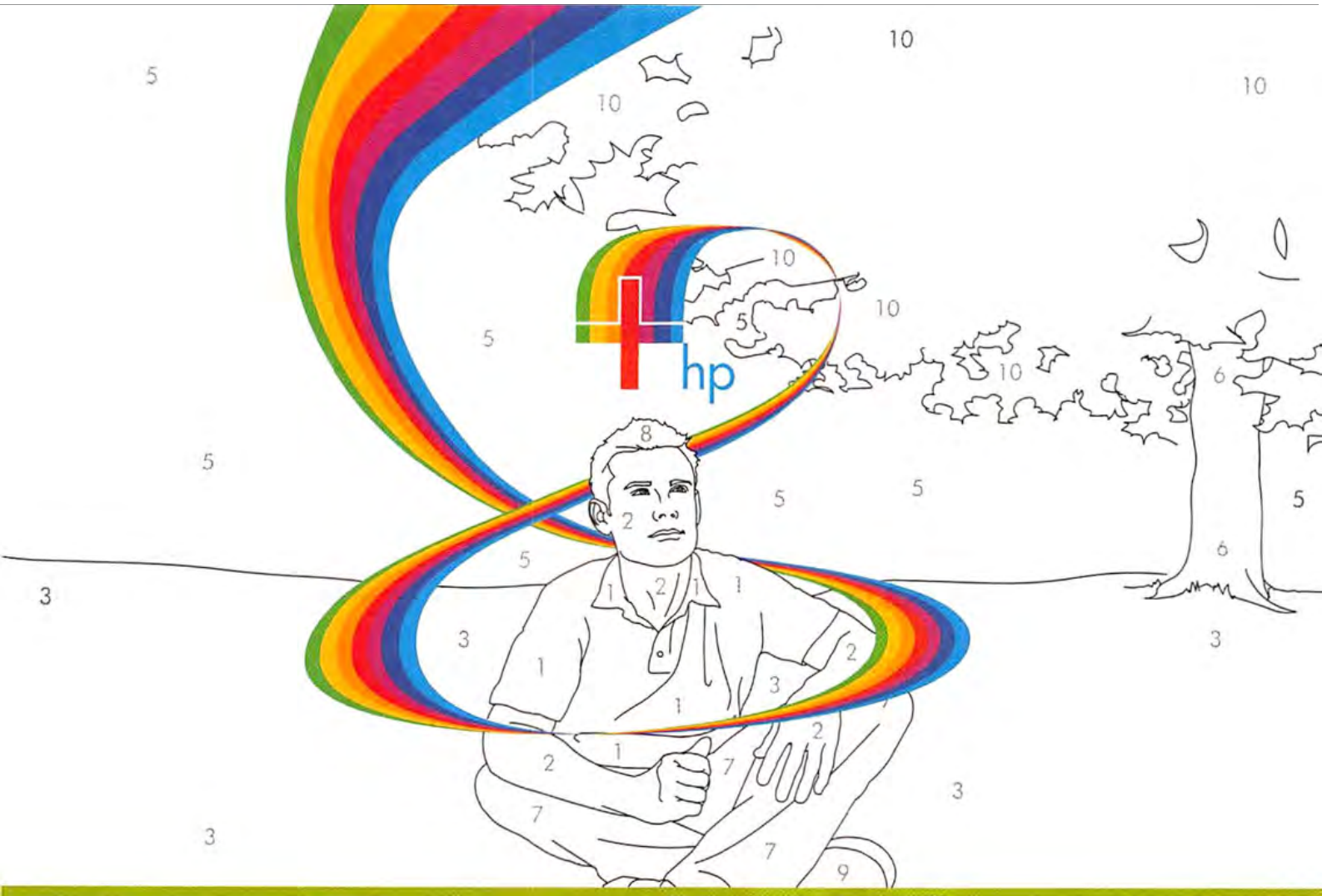
Although I still like the BT-500 for Bluetooth-enabled laptops, the M310 has become my personal favorite for non-Bluetooth models. My iBook never goes anywhere without it. □

GO TO WEBLOG:

The Mac Gems Weblog (www.macworld.com/weblogs/macgems/) has longer versions of the reviews you see here, as well as reviews not in this column. Check out this month's Web exclusives.

PRODUCT	RATING	URL	DESCRIPTION
Endicia	★★★★½	find.macworld.com/0196	mailing and postage program
Fob	★★★★	find.macworld.com/0196	timer
SideTrack	★★★★½	find.macworld.com/0196	replacement trackpad driver

Senior Writer DAN FRAKES (www.danfrakes.com) is the author of *Mac OS X Power Tools*, second edition (Sybex, 2004), and the reviews editor at Playlistmag.com. Send your thoughts on this column, or on things you'd like to see in future columns, to macgems@macworld.com.



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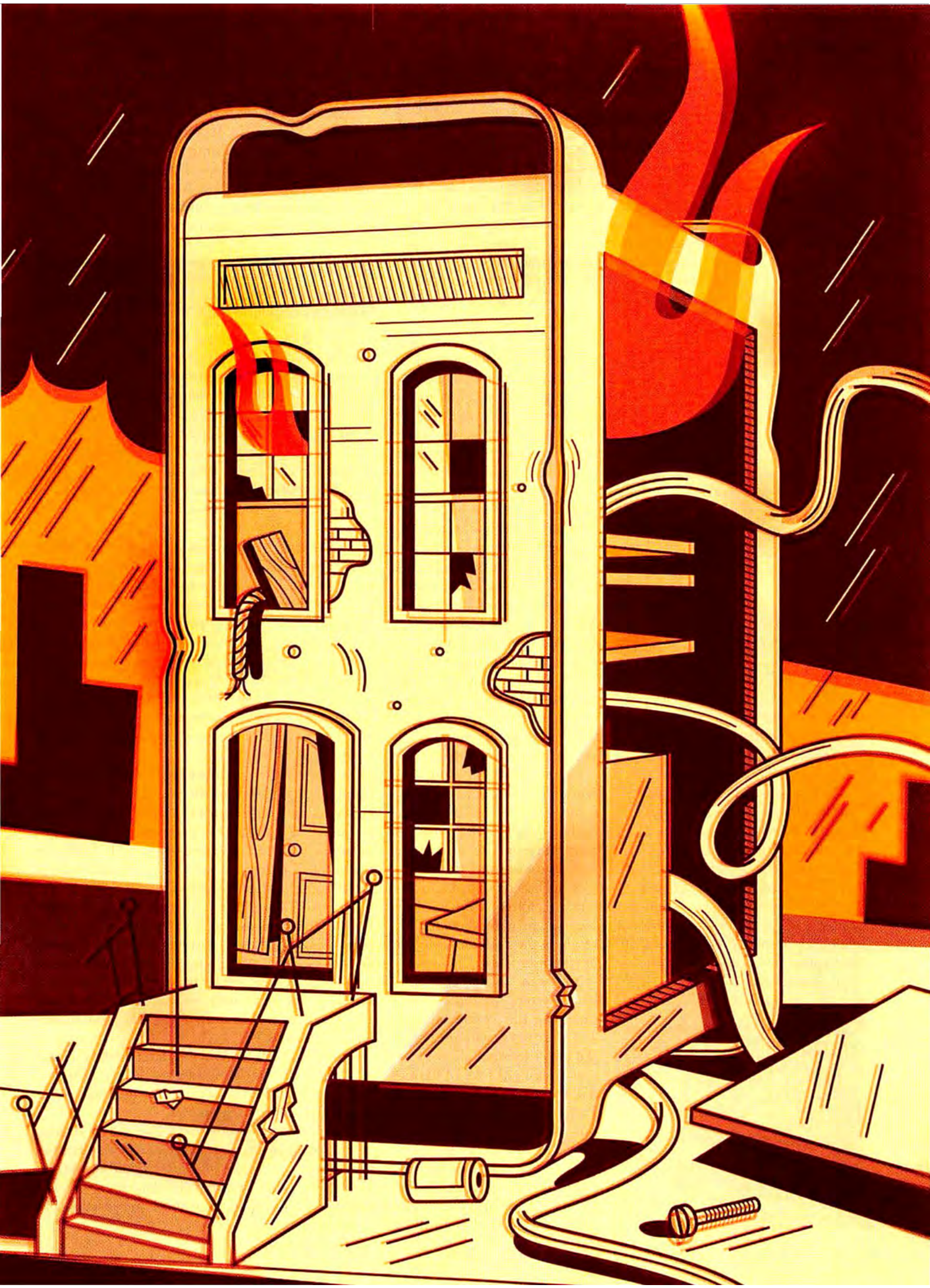
EIGHT SIMPLE STEPS YOU CAN TAKE NOW TO KEEP YOUR MAC FROM FALLING APART

PREVENT MAC DISASTERS

BY ROB GRIFFITHS
ILLUSTRATION BY HARRY CAMPBELL

The mixed-up menus. The sudden crashes. The ever-spinning beach ball. They're all signs that your Mac is headed for trouble—maybe *big* trouble—if you don't do something soon.

OS X tends to be more stable than some other operating systems I could name, but it's not indestructible. Properly maintaining your Mac can ward off disasters that could leave your comfortable digital environment in ruins. And Mac maintenance is easy—there's even software that does most of the work for you. A little effort is all it takes to keep your technological house in order.



VERIFY PREFERENCES

WHY: Most OS X applications store preference information in XML files. Sometimes these files become corrupted, which can lead to undesirable results such as crashes and odd-looking menus. Verifying your preference files is a good way to eliminate unexplained crashes.
WHEN: Primarily after you notice unexpected behavior, such as crashes, menu corruption, or other oddities.
WHO: Everyone.

If your e-mail program quits while loading, if your Web browser forgets your settings, or if Address Book loses its categories, the application's preferences file *may* be corrupt. You could simply delete the corrupted file outright, but then you'll lose custom preferences, which you must restore by hand or from a backup. Save yourself trouble by first verifying the corruption.

OS X uses *.plist* files to store application- and system-related preference information. These files are text files saved in the XML format, which follows a set layout. So it's easy to determine whether a file is corrupted: if it doesn't adhere to the set XML layout, it's corrupted.

There are two ways to check XML preference files. In OS X 10.2 and later, you can use the Unix utility plutil. Just open Terminal and type the following: `sudo plutil -s ~/Library/Preferences/*.plist`—and then press enter and provide your password when asked.

In the preceding code, `-s` tells plutil to suppress output of a successful test, so if you see output, you'll know that it's from an error. You need to use sudo because some preference files, such as those from Micromat's TechTool, are owned by the system even though they reside in the Preferences folder in your user folder.

You can check the top-level system preferences by repeating this command with `/Library/Preferences` as the folder location.

If you're not fond of Terminal, try Jonathan Nathan's free Preferential Treatment application (★★★★; find.macworld.com/0235). It lets you check user-level and system-level preferences by clicking on a couple of buttons. It's a bit slower than Terminal, but it's much easier to use, and its results are easier to read. It lets you opt to open, move, or trash any corrupted files it finds.

An application may create a file that fails Apple's test but is not corrupt. If you see a file or two listed for applications that seem to work just fine, you can safely ignore the warnings. If you find a truly corrupted preference file (and don't have a corruption-free backup), quit the application, trash the file, and start over with the application settings.

TIP: FIND CORRUPT PREFERENCE FILES FAST

To simplify using the plutil utility in Terminal, select File: Save As, give the file a name (such as Check My Permissions), and pick a location. In the When Opening This File section, select Execute Command In A Shell, click on the Execute This Command (Specify Complete Path) button, and enter either of the commands in this section. Click on Save, and you've got a clickable file. In the future, simply double-click, enter your password when prompted, and press return.



REPAIR PERMISSIONS

WHY: OS X uses a permissions system to determine which programs and folders a user can access. Sometimes these permissions are mistakenly modified, and you can't access folders or programs. Repairing disk permissions restores the correct permissions, allowing access to folders and applications.
WHEN: Depending on your download habits, as often as once a week or even every day.
WHO: Anyone who regularly downloads and installs trialware and shareware.

Say your word processor tells you that it can't save the file you've been working on for an hour, that your e-mail program won't let you change its preferences, or that you can't even launch an application. These are all symptoms of permissions gone bad.

Different files and folders at different locations on your hard drive have different permissions (see "Who's in Charge?"). Although OS X's permissions system works well most of the time, default permissions can become corrupt. This happens most often after you install software that includes system-level components, or when you update the OS.

To repair broken permissions, launch Disk Utility (Applications: Utilities), click on your startup disk, and then click on Repair Disk Permissions. (Don't bother running Verify Disk Permissions—it takes just as long as Repair Disk Permissions, and if it tells you that it found permissions errors, you'll then want to run Repair Disk Permissions anyway.)

This process can take as long as 15 minutes; while Repair Disk Permissions is working, you'll see messages about items it has corrected (see "Permissions Granted!"). When it's done, any permissions issues that affect system-level files and folders on your machine will have been resolved. (For an apparent exception, see "Even Perfect Disks Have Imperfect Permissions.")

Repair Disk Permissions uses internal data, as well as data in the top-level Library: Receipts folder, which keeps track of software you've installed. Never delete anything from this folder.

Your permissions-repair schedule should depend on how often you run installers. The more often you run installers, the more often you should run Repair Disk Permissions. I recommend that you repair permissions weekly if you download and install a few programs a week.

DELETE CACHE FILES

WHY: Cache files are temporary receptacles for data that help OS X and its applications work faster. They can become corrupted or simply too large to function well. If you're experiencing odd issues with an application—such as preferences that won't load or menus that contain strange characters—or if an application or the system seems sluggish, it may be a cache-related issue.

WHEN: Removing cache files once or twice a month works well for most people, but if your Mac is always on and working, you may want to remove cache files once a week to prevent corruption.

WHO: Everyone.

A cache is a place to store something temporarily so the OS or a program can retrieve and use it in a hurry. G4 and G5 processors have caches that help them handle instructions more quickly. OS X uses disk-based caches that hold copies of graphics, frequently performed calculations, and the contents of dynamic menus. Caches help reduce application launch times, speed up the display of screen data, and make Web sites load faster.

You'll find OS X's cache files in the System: Library: Caches folder, in your user folder's Library folder, and in folders within individual application folders. The easiest way to remove most of them is to use one of the tools listed in "Managing Mac Maintenance." (Except for Safari's caches, these tools generally don't affect application-specific caches; you'll have to wrangle these files yourself.)

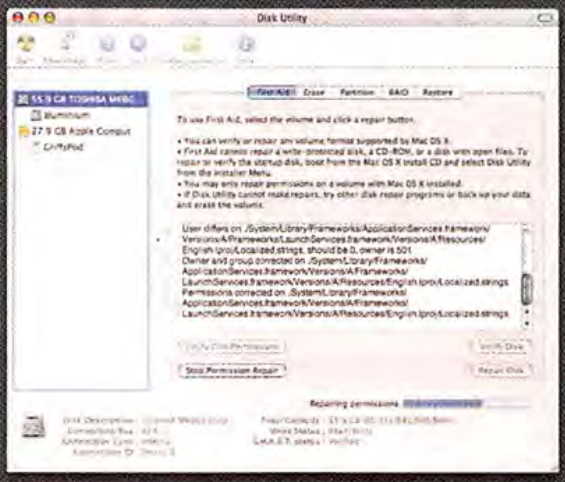
Regularly deleting your cache files is a good idea. And if you're seeing slowdowns or other unexplained behaviors, there's no harm in trying to rout the bad behavior by deleting the cache files.

EVEN PERFECT DISKS HAVE IMPERFECT PERMISSIONS

The Repair Disk Permissions function works by comparing each folder's actual permissions with a master list of the expected permissions for that folder. If there's a difference between the actual and the expected, Repair Disk Permissions modifies the folder to match the master list.

But there's a glitch in the process—if you run Repair Disk Permissions and then immediately run it again, you should get a clean bill of health, since everything was just repaired. But you won't. Instead, you'll probably see this in the output section: "We are using special permissions for the file or directory /System/Library/Filesystems/cd9660.fs/cd9660.util. New permissions are 33261."

You can safely ignore this message.



Permissions Granted! When you run Disk Utilities' Repair Disk Permissions feature, you'll see messages explaining which files and folders had incorrectly set values.

Like cache files, log files are stored in several places, from the system level (in the /var/log and /Library/Logs folders) to your user folder (~/Library/Logs). You can run OS X's built-in daily, weekly, and monthly maintenance scripts to take care of the system-level log files. To root out log files at the user level, you need either the Console application (in Applications: Utilities) or an application such as NoName Scriptware's CacheOutX.

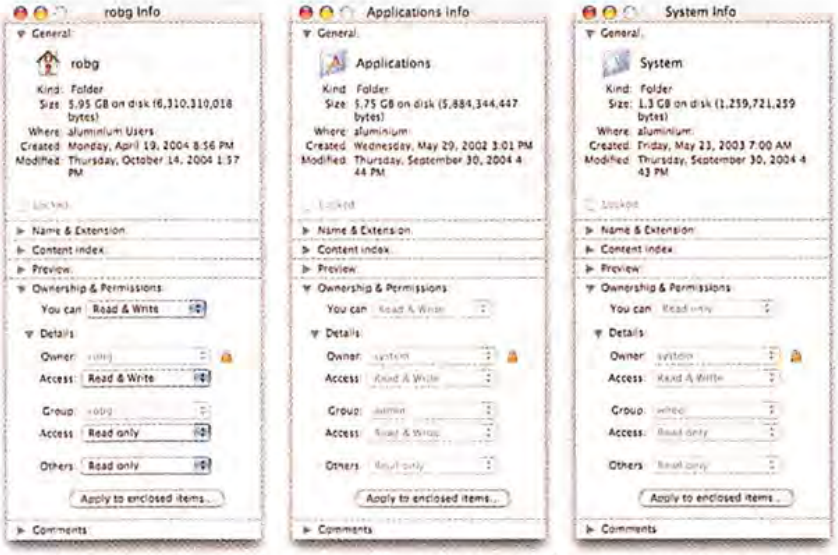
DELETE LOG FILES

WHY: Log files record system- and application-related activity. They grow over time, using disk space to store data you'll never need.

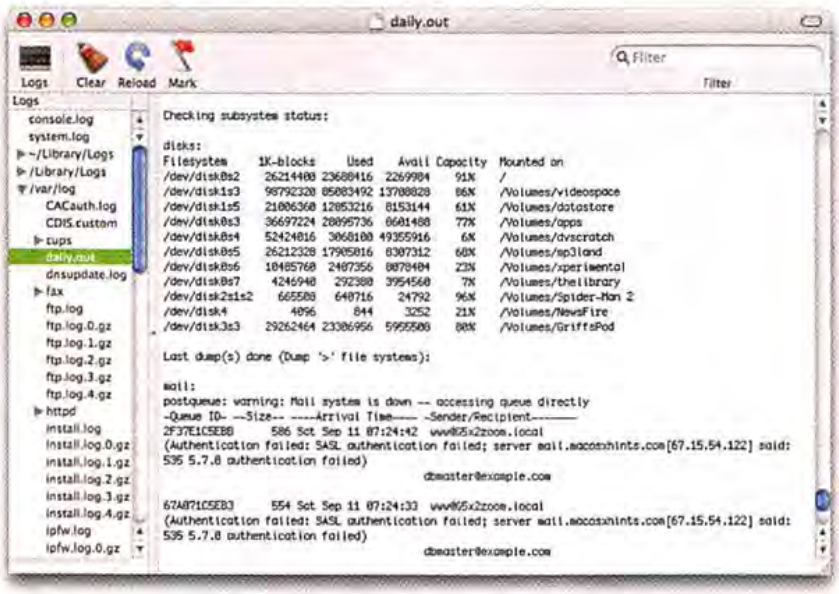
WHEN: Log files don't normally grow excessively large, so you can delete them only when you want to reclaim drive space.

WHO: Users concerned with freeing every bit of available drive space, and users who make extensive use of FTP, Web, and other bundled Unix applications.

As you work, your OS and applications automatically create log files that record everything from the mundane to the important. Large log files don't cause system instability, but when diminishing disk space becomes a concern, there are a couple of ways to clean up.



Who's in Charge? Permissions are complicated. On the left, the user can read from and write to the user's Home directory without restriction. In the center, the user and the admin-level user can read from and write to the Applications folder—the folder isn't owned by the user. On the right is the OS X System folder, to which not even the admin user has write privileges.



The Daily News Use Console to check the output from OS X's built-in daily, weekly, and monthly maintenance scripts.

In Console, delete any log listed in your user folder's Library: Logs folder by highlighting it from the left-hand Logs column and pressing ⌘-delete. After you confirm your action, that log file vanishes. Your Mac automatically re-creates it the next time the system or the program needs to write something to the log.

PREBIND

WHY: Prebinding allows applications to launch more quickly. When prebinding information becomes outdated, launch times increase.
WHEN: Users of OS X 10.2 and earlier should prebind at least monthly—users who install and remove a lot of applications should prebind more often.
WHO: Anyone running OS X 10.2 or earlier.

Prebinding is a process through which OS X figures out what code is used by an application before it runs, greatly reducing the application's launch times. In early releases of OS X, prebinding information could become out-of-date, leading to slow-launching applications. If you're running a pre-10.3 version of OS X, use one of the tools mentioned in "Construct a Maintenance Toolbox" to update your prebinding information. Or do it yourself in Terminal: Open a new window, type `sudo update_prebinding -root /`, and enter your admin password when prompted. You may want to do this at the end of a workday—the process can take as long as an hour, depending on how many applications are installed.

In OS X 10.3 and later, the system automatically updates prebinding information whenever you use Apple's installer program to install a program on the boot volume (the "optimizing" step you see during the install process). For programs that are either drag-installed or installed on other volumes, the system automatically runs a tool called *fix_prebinding* when it detects an application with outdated prebinding information. The preceding command works on 10.3 systems, but it shouldn't be necessary.

For another way to speed up application launch times, see "To Defrag or Not to Defrag?"

AUTOMATE YOUR MAINTENANCE

WHY: OS X comes with a set of Unix scripts that run automatically. They delete and archive unnecessary data created through normal use of your machine.
WHEN: You don't have to lift a finger—the scripts run daily, weekly, and monthly, as long as your machine is awake at their scheduled run times.
WHO: Heavy users of the command line.

OS X is designed to make basic maintenance tasks invisible to you. The operating system regularly cleans up the little files that can clog your machine—from system logs to FTP logs to firewall logs. But there's a catch. OS X's cleanup scripts are set to run at specific times. The daily script runs at 3:15 a.m., the weekly script runs at 4:30 a.m. on Saturdays, and the monthly script runs at 5:30 a.m. on the first day of the month. Apple probably chose these times because you're not likely to be using your machine during the wee hours, so you probably won't be bothered by the CPU draw or the drive noise. Unfortunately, those times are also when most of our machines are powered off or sleeping, so the scripts can't execute.

Most people won't see problems if these scripts don't run regularly, but a few will. To find out if you're vulnerable, take a closer look at each script.

The daily script cleans up the tmp directory, where many programs and installers store files that aren't permanently required. iChat, for instance, keeps copies of images you've sent in the tmp folder. (Your machine empties this folder when you restart.)

However, the daily script also backs up your NetInfo database, an essential file with information on your users, services, and devices. If you don't regularly back up this file in some other way, I suggest running the daily script. (Note that recovering this file from a backup is very complicated. Go to find.macworld.com/0205 for a how-to that's not for the faint of heart.)

The daily script also creates a network-interface status report and a free–disk-space report, and rotates the system.log files by creating multiple compressed backup copies.

The weekly script updates the *locate* and *whatis* databases (two files that are very useful when you spend a lot of time in Terminal); archives older secondary system logs, such as FTP; and archives Web-server logs. It also restarts your Web server.

The monthly script runs a user time-accounting script (not much to it when you're the only user on your machine) and rotates installer log files.

You can look for reported errors in the output of these scripts by opening the Console program (Applications: Utilities), clicking on the /var/log line

TO DEFRAG OR NOT TO DEFRAG

Although some maintenance procedures are no-brainers, others are debatable. Take defragmenting your hard drive. Mac OS saves files in small pieces across your hard drive, rather than in contiguous chunks of free space. The fuller your hard drive is, and the more you've saved and deleted files over time, the worse file fragmentation can be. It can slow down hard-drive access times, since your hard drive has to work harder to find all the pieces of each file. And the disk directory for a fragmented volume is much more complex than one for a relatively fragment-free drive, which can increase the chances of directory problems.

Defragmenting joins fragmented files and moves them to contiguous blocks of free space on a drive. Although it sounds like a good idea, there's disagreement about whether it's necessary in OS X. With OS X 10.3 and later, if you have disk journaling enabled (it's enabled by default), OS X performs a limited degree of defragmentation of smaller files during the normal course of operation. Many users shouldn't give fragmentation a second thought.

But if you work with extremely large files—for example, huge Photoshop images or digital video files—you may find that a defragmented drive performs better. Although there are a few utilities for defragmenting volumes in OS X, my favorite is TechTool Pro 4. (Warning: Before defragmenting any volume, verify the integrity of the drive and back up any important files. The process involves copying and deleting most of the files on the drive, so any problems can result in data loss.)—DAN FRAKES

in the Logs column (click on the Logs button in the toolbar if you can't see this column), and then selecting daily.out, weekly.out, or monthly.out. The contents of the file display to the right (see "The Daily News").

If you've decided that running the scripts is important, but you don't want to keep your Mac on and awake at the times they run, see "Run, Scripts, Run!" for tips on changing the automatic run times.

KEEP HARD DRIVES HEALTHY

WHY: An unhealthy hard drive is a nightmare. SMART (Self-Monitoring Analysis and Reporting Technology) lets you perform a routine checkup that identifies potential drive failures before they happen, so you have time to update backups and look for replacement drives.

WHEN: You (or an automated application) should check SMART indicators daily.

WHO: Everyone.

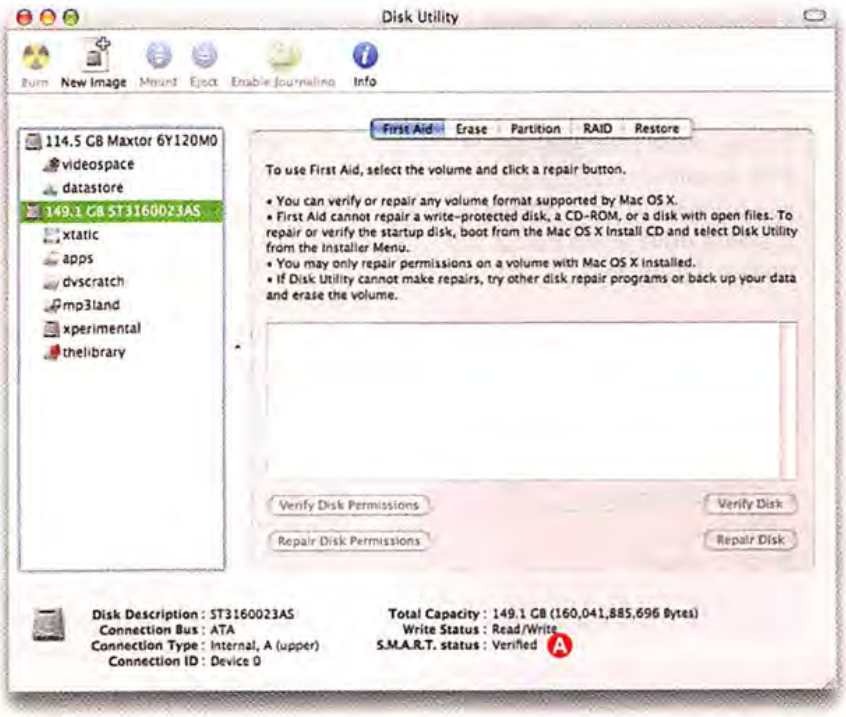
The hard drive or drives inside your Mac are critically important—if the hard drive fails, the Mac won't boot, and you could lose all your files. While there's nothing you can do to physically maintain your drives, there are some tools that sniff out disk weaknesses, and there are a couple of ways to recover data when you do have trouble.

SMART Status Indicators The SMART hard drives in newer Macs diagnose their own health, and they note any problems they find with internal drives on an IDE/ATA or SATA bus.

There are two ways to check the status of your Mac's SMART indicators. If you're using the machine locally, launch Disk Utility (Applications: Utilities) and click on the top-level indicator for your drive in the left-hand column. In the bottom of the window, you'll see the words *SMART status*, and next to that, you'll see the word *verified* (see "How SMART Am I?"). If you don't see *SMART status*, your Mac doesn't have the technology. If you see the phrase but it's not accompanied by *verified*, you should back up your hard drive and then replace it—it will likely experience a failure soon.

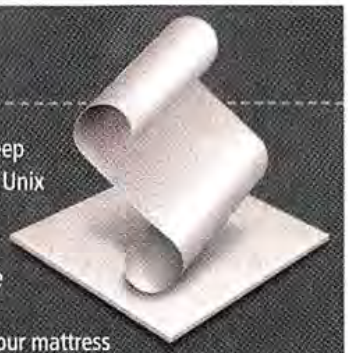
If you prefer to use Terminal, or if you connect remotely to Macs—for instance, if you have a Mac in your home that you're using as a server—you can also check the status of the drives from Terminal. In Terminal, type `diskutil info disk0 | grep SMART`, assuming that the Mac has only one hard drive. If the Mac has more than one hard drive, type `diskutil list` to see which drive numbers are assigned to each drive, and then repeat the first command with the proper number.

Manually checking SMART indicators gets old fast. If you're comfortable in the command line, you can add a new cron task that executes this command on a regular basis and writes the output to a text file; you can also create an AppleScript that displays a dialog box and then set the AppleScript to run at login each day. Or you could let a third-party application, such as Alsoft's DiskWar-



How SMART Am I? Disk Utility checks a Mac's SMART indicators. The text at the bottom right A indicates that this drive's health is good, with no signs of impending failure.

RUN, SCRIPTS, RUN!



OS X uses Unix maintenance scripts to keep your hard drive tidy. These are run by the Unix scheduling utility cron, but only if your Mac is awake in the wee hours of the morning. If it isn't, you'll need another way to execute these actions.

If you're someone who remembers to rotate your mattress regularly, you'll do fine with the free MacJanitor, from Brian Hill, which lets you manually run each script—or all three—at the click of a button whenever you like. If you'd rather not have to remember such mundane tasks, Macaroni, from Atomic Bird, will check, each time you start or wake up your Mac, to see whether the scripts were run on schedule; it will automatically run any tardy script for you.

But if you're a geeky user who wants to decide exactly when these scripts run and to understand exactly what's going on behind the scenes, check out "Easy Mac Maintenance" (find.macworld.com/0209). This step-by-step article shows you how to use the utility CronniX (free [donations accepted]; find.macworld.com/0210) to edit your Mac's *system crontab* and reschedule the maintenance scripts.—DAN FRAKES

rior ($80; www.alsoft.com), Micromat's TechTool Pro 4 ($98; www.micromat.com), or Julian Mayer's SMARTReporter (free; http://homepage.mac.com/julianmayer/), inspect the drives and alert you if there's an error.

Advanced Maintenance and Repair SMART indicators don't catch everything. Despite your best efforts, you might power up your machine one day and see the dreaded blinking question mark.

Your first step should be to boot from the OS X Install CDs. Next, select Open Disk Utility from the Installer menu (next to the Apple menu). If your boot drive shows up in the left-side drive list, select it, and click on Repair Disk—then sit back and cross your fingers. Disk Utility may be able to repair the disk; if it does, restart and hope the drive works as usual. Then back up important files and consider investing in a new drive.

If Disk Utility can't repair the drive, it's time for DiskWarrior or TechTool Pro 4. DiskWarrior is primarily a directory-repair tool. Its directory-rebuilding feature has returned seemingly dead drives to the land of the living. TechTool Pro also recovers data from dead drives, through a different mechanism. In addition, it can monitor and test a number of other aspects of your system, such as CPU, memory, and power supply. Both are capable tools; which to use is really a matter of personal preference.

If you can't make the drive work with either of these programs, it has probably suffered a physical failure of some sort. If you're willing to dole out serious dough, companies like DriveSavers Data Recovery (www.drivesavers.com) can often recover data from even badly damaged drives.

TIP DETECT AVAILABLE HARD-DRIVE SPACE

Although software warns you of impending hardware failures, it won't help you with the primary cause of poor hard-drive performance: full disks. Keep at least 10 percent of your boot drive free. To see how much space you have available, highlight the boot drive in the Finder and press ⌘-I (Get Info).



CONSTRUCT A MAINTENANCE TOOLBOX

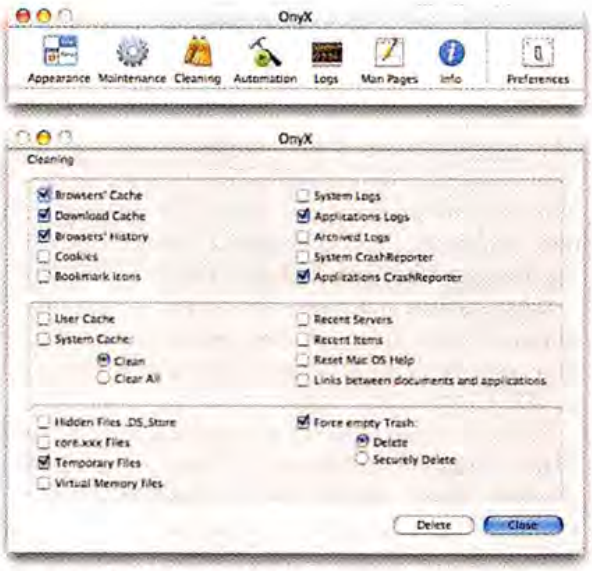
WHY: Maintaining your Mac doesn't have to be a burden. There's software that can handle it with ease, and some programs even throw in additional system-tweaking features.

WHEN: There's no sense in waiting to download helper applications.

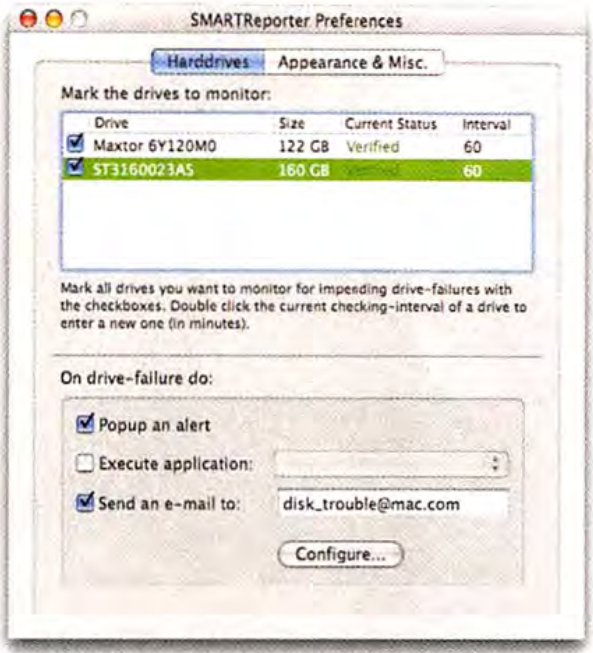
WHO: See "Managing Mac Maintenance" for an easy-to-scan list of the applications and their abilities. Out of that list, every Mac user should have at least three: OnyX, SMARTReporter, and DiskWarrior.

OnyX For general system maintenance, Titanium Software's OnyX is tough to beat. It's free, it has a clean interface, and its help system is easy to understand. OnyX's features go well beyond basic maintenance: the program lets you erase caches, logs, browser cookies, and even Safari's cached bookmark icons with a few mouse clicks (see "Clean Up This Mess!"). Throw in the ability to run a Terminal command, browse log files, and view Unix manual (man) pages, and you've got a maintenance winner.

SMARTReporter Julian Mayer's SMARTReporter checks SMART status indicators. While many programs can do this (including Apple's Disk Utility), I prefer SMARTReporter's reporting capabilities.



Clean Up This Mess! OnyX has many maintenance features wrapped in a tidy interface. You can also use it force-empty the Trash, which is useful for removing the occasional stubborn file stuck in your Trash.



Get SMART! Using SMARTReporter, you can have your machine tell you via e-mail, application execution, or pop-up alert whenever a drive's SMART status indicator shows a potential problem.

With its intuitive interface, you'll have your drives set up for regular monitoring in no time (see "Get SMART!"). You specify the testing interval and the actions to take if a test fails. You can even control SMARTReporter's appearance in your menu bar—a solid green or red disk icon, or just a small green or red dot that indicates the status of the most recent test.

DiskWarrior When your hard drive appears to be dead, you need a drive-repair utility. And DiskWarrior's ability to resuscitate drives is unmatched. Using a proprietary and patented technique, DiskWarrior builds a new directory for your drive. Once this new directory is built, DiskWarrior lets you mount it as a new hard drive, so you can check it for errors and even copy files off of it. If everything looks good, DiskWarrior then writes its new directory onto your drive. DiskWarrior can't save you from hardware failures that render the drive unusable, but for nearly everything else, it's an invaluable data-saving tool.

The Last Word

You've always known that Macs are superior, and this superiority extends to ease of maintenance. With simple housework—regularly checking a few things like permissions, cache and log files, and your drive's SMART status—you can prevent your Mac from falling into disrepair. □

Contributing Editor ROB GRIFFITHS is the author of *Mac OS X Power Hound, Panther Edition* (O'Reilly, 2004) and runs the Mac OS X Hints Web site.

TIP ROUTINE MAINTENANCE REMINDER

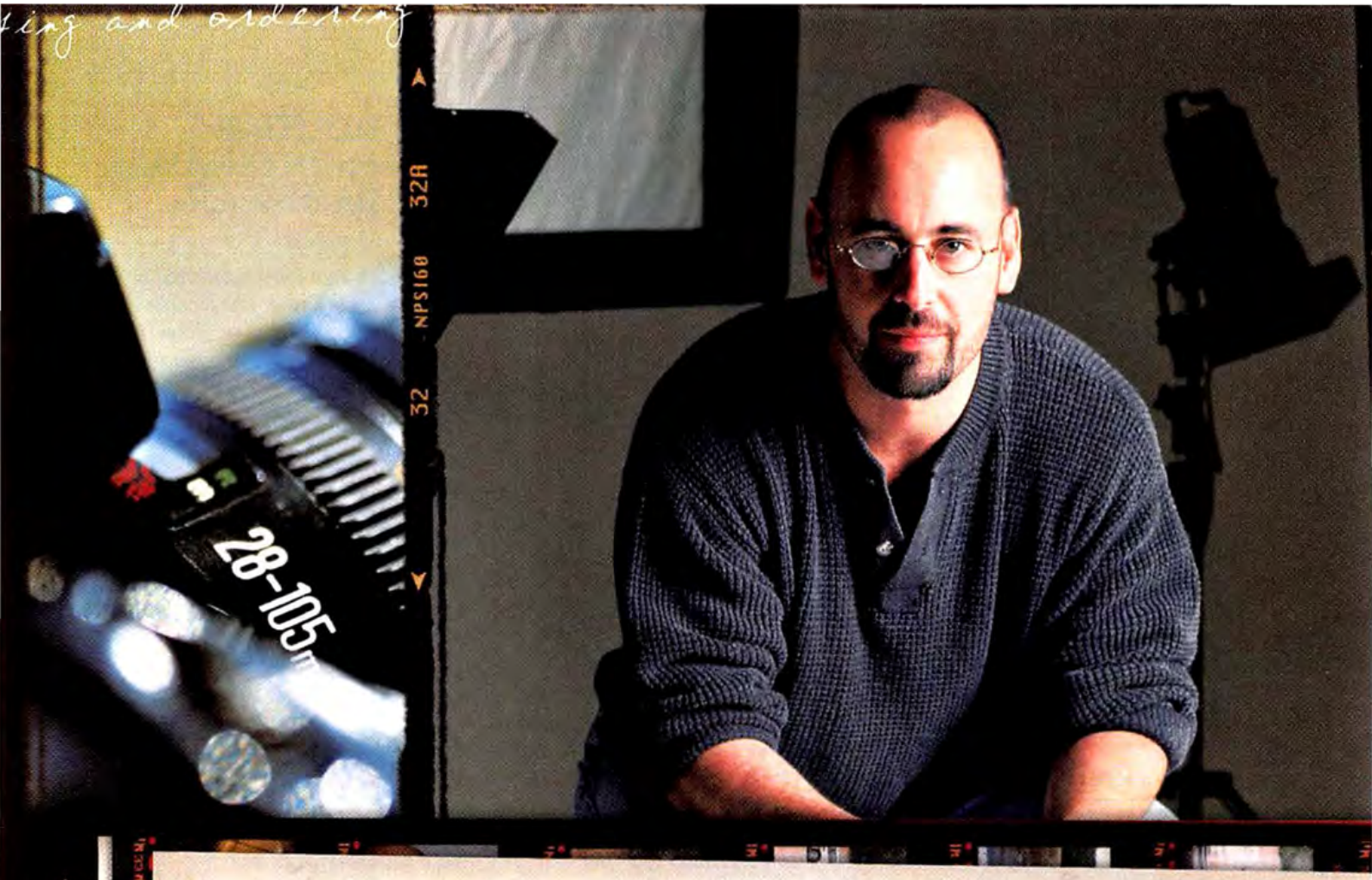
Set up a repeating event in iCal or Outlook and call it Mac Maintenance. When the reminder pops up, take a routine-maintenance break.



MANAGING MAC MAINTENANCE

COMPANY	PRODUCT	PRICE	CONTACT	Runs OS X's Built-in Scripts	Schedules OS X's Built-in Scripts	Repairs Permissions	Deletes Disk Caches	Deletes Log Files	Updates Prebinding	Checks SMART Hard-Drive Status Indicators	Schedules SMART Hard-Drive Checks	Other Features
Alsoft	DiskWarrior	$80	www.alsoft.com	○	○	○	○	○	○	●	●	Rebuilds directories and saves data from damaged disks.
Atomic Bird	Macaroni	$9	www.atomicbird.com	●	●	●	○	○	○	○	○	Intelligent scheduler runs scripts during idle time.
Brian Hill	MacJanitor	free	find.macworld.com/0212	●	○	○	○	○	○	○	○	Displays scripts' output in its window as they're run.
Julian Mayer	SMART-Reporter	free (donations accepted)	find.macworld.com/0215	○	○	○	○	○	○	●	●	Lets you set how often to monitor and set notification method.
Kristofer Szymanski	Cocktail	$15	www.macosxcocktail.com	●	●[A]	●	●	●	●	○	○	Lets you enable Dock shadow; alternative genie mode; Finder tweaks.
Micromat	TechTool Pro 4	$98	www.micromat.com	○	○	○	○	○	○	●	●	Comes with many hardware diagnostics.
NoName Scriptware	CacheOutX	free	find.macworld.com/0211	○	○	○	●	●	○	○	○	Lets you schedule cache removals via iCal events.
Northern Softworks	Panther Cache Cleaner	$9	find.macworld.com/0213	●	○	●	○	●	●	○	○	Lets you manage login items and tune Internet connection.
stereyoh	sterMachine	free	find.macworld.com/214	●	○	●	●	●	●	○	○	Lets you run Terminal commands; Finder tweaks.
Titanium	OnyX	free	www.titanium.free.fr	●	○	●	●	●	●	○	○	Lets you view log files and browse Unix man pages.

● = yes; ○ = no. [A]Registered version only.



With a spreadsheet:

- I can list all my jobs

With a FileMaker Pro database:

- I can list all my jobs
- manage schedules and appointments
- track portrait sales
- organize contacts
- search caterers by price
- sort talent by glamour, fitness, or hand model
- share work orders with clients on the web
- share casting sheets with coworkers on the network
- keep track of equipment rentals
- print labels and packing slips
- create detailed invoices
- and send reminder emails after 30 days

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Get FileMaker Business Tracker FREE,
a ready-to-use business tracking system,
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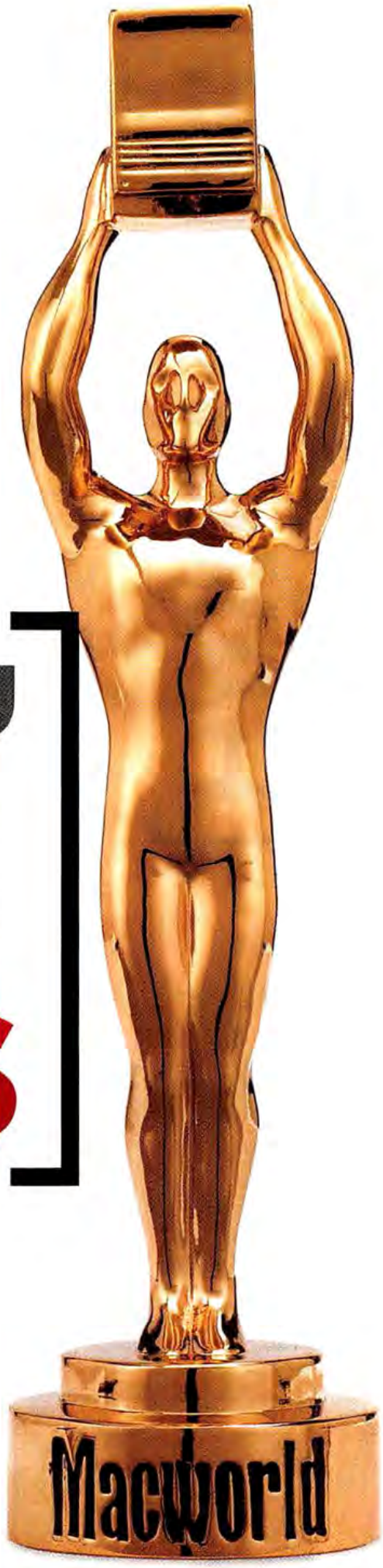


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In 2004, we reviewed more than 450 products. We saw the introduction of the iPod mini and the iPod-influenced iMac G5. And we got important updates to Mac standards such as FileMaker Pro, Bare Bones Software's BBEdit, and QuarkXPress, as well as a bunch of Mac gems—little apps that didn't have megamillion-dollar promotion budgets but still made us stand up and say, "Cool!"

But which of these products were the best? To find out, *Macworld*'s editors went back over the products they'd seen and reviewed over the past year—those released between November 1, 2003, and November 1, 2004—and they nominated their favorites. Then we went through a rigorous, hotly debated culling process, eliminating products that didn't withstand comparison. We were left with the 34 that follow—the best Mac products of 2004.

The 20th Annual Editors' Choice Awards



PHOTOGRAPHY BY PETER BELANGER

HARDWARE



BEST MAC

Apple's ads exclaim that the new, all-in-one **iMAC G5** is "from the creators of iPod." But the company's latest desktop computer is unmistakably from the same folks who designed the first iMac, the PowerBook, and the original Mac itself. The exterior is as white and shiny as Apple's stylish music players, but behind that flat-panel LCD, there's a serious computer. Its hot-running G5 processor doesn't overheat inside the 2-inch-thick case. And even though three fans keep things cool, the system is whisper-quiet. The key feature, though, could be its price: starting at $1,299, the new iMacs deliver way more bang for the buck than the last iMac G4s. Sure, the iMac G5 is skimpy on RAM. But it's still, hands-down, the coolest Mac desktop since, well, the one before it.—DAN MILLER

17-inch, 1.6GHz: ●●●●; $1,299; 17-inch, 1.8GHz: ●●●●; $1,499; 20-inch, 1.8GHz: ●●●●½; $1,899; December 2004; www.apple.com

BEST iPOD ACCESSORY



Plenty of iPod add-ons will let you play tunes from your iPod over the nearest FM radio—great if you want to play said tunes in the car or on your home hi-fi. But Sonnet Technologies' **PODFREQ** is the first iPod transmitter that really gets it right. Its interface is digital (instead of switch- or iPod-based), and it acts as a dock—with USB and FireWire ports—when the iPod is attached. A friendly interface makes it easy to pick the frequency you want, and the signal is consistently crisp, clear, and strong. The PodFreq isn't inexpensive—it costs at least $30 more than other transmitters. But it'll keep you rocking no matter where your journey takes you.—PHILIP MICHAELS

Hot Stuff, August 2004; $100; www.sonnettech.com

BEST IN DIGITAL PHOTOGRAPHY

Best Digital Camera (High-End)

You can't talk about Canon's **EOS 20D** without making a lot of comparisons. Compared with its predecessor, the 10D, the 20D has a higher resolution—8.2 megapixels—and less image noise. Compared with similarly priced digital SLRs, its startup and shooting performance are faster; its in-camera JPEG processing controls, finer; its autofocusing, speedier; and its lens choices, wider. And the list goes on. It's a superlative camera.—TERRI STONE

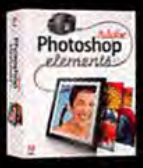
$1,599 (without lens); www.canon.com



Best Digital Camera (Low-End)

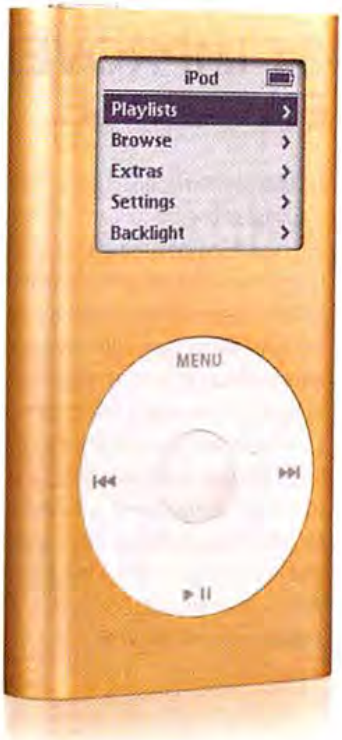
Sony's **CYBER-SHOT DSC-T1** is a digital point-and-shoot camera that also captures high-quality video. The DSC-T1 is only four-fifths of an inch thick, yet it has a 2.5-inch LCD screen and takes 5-megapixel images. And you'll also get 30 frames per second of full-screen VGA (640 by 480), with little noticeable compression. The DSC-T1 isn't perfect: red-eye commonly crops up, it lacks manual modes, and the price is high. But we can forgive all that when we watch the great video this tiny camera can capture.—TERRI STONE

$500; www.sony.com



Best Way to Edit Photos

Adobe's **PHOTOSHOP ELEMENTS 3.0** gives you a big chunk of the pixel-pushing power of the hefty Adobe Photoshop CS, but at a bargain price and with far less complexity. New users will love the Quick Fix editing mode, a one-click way to fix bad exposures automatically. Elements 3 also includes Photoshop's powerful File Browser for searching and organizing your shots. Other great additions include Photoshop's fabulous filter gallery and that program's popular Healing Brush tool. Together, they allow you to fix the flaws



MOST STYLISH MUSIC PLAYER

From the moment Apple's **iPOD MINI** arrived, everyone complained that its 4GB capacity—enough for roughly 1,000 songs at 128 Kbps—lagged behind those of the 20GB, 40GB, and 60GB iPods. But it's design that makes the mini Eddy-worthy. Those five metallic hues make a serious fashion statement (and make the white iPod seem sterile by contrast), and the slim size and feathery weight make it ridiculously easy to forget you're carrying the thing. The iPod mini was also the proving ground for the new Click Wheel interface—which proved to be so popular that Apple has now deployed it across the fourth-generation iPod line.—JONATHAN SEFF

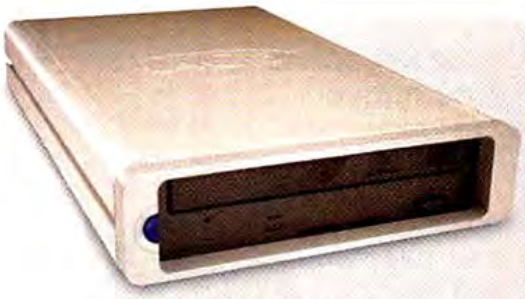
●●●●½; May 2004; $249; www.apple.com



BEST KEYBOARD

Pining for the Apple keyboards of old? ("Old" in this case means the late 1980s and early 1990s.) Then go to your Mac and order Matias's **TACTILE PRO KEYBOARD**. Using the same key-switch technology found in Apple's original Extended Keyboard, the Tactile Pro provides similar tactile feel and feedback (albeit with the accompanying clackety noise). As a bonus, the Tactile Pro's keys are labeled with the alternative characters accessible by pressing modifier keys, so it's easy to type special characters, such as trademark (™) and copyright (©) symbols, that might otherwise require opening Keyboard Viewer.—DAN FRAKES

$100; http://matias.ca/tactilepro



Best New Storage Technology

The big breakthrough this year in removable storage: Thanks to new double-layer DVDs, you can now write as much as 8.5GB of data on a single-sided disc—enough to hold an entire movie. The secret: The new technology lets drives write to two different layers on supported media. Sony was first out the door with a dual-layer drive, and a bunch of vendors are now selling them. But LaCie's **8X D2 DVD+RW DOUBLE LAYER DRIVE** was the first to offer Mac support, by bundling a special version of Roxio's Toast software. These and other first-generation drives could write only at 2.4×, but second-generation drives that take that up to 4× are starting to appear—now we just need the media.—JAMES GALBRAITH

$199; www.lacie.com



Best Color Laser Printer under $1,000

A year ago, getting a good color laser printer for less than $1,000 was all but unheard of. Today you can pick up HP's network-ready **COLOR LASERJET 2550LN** for as little as $500. This compact printer includes PostScript 3 emulation, USB 2.0 and Ethernet ports, and support for Rendezvous. And you won't sacrifice print quality. While you wouldn't use this machine for high-quality photos, it'll crank out crisp text and vivid graphics at a respectable speed.—KELLY LUNSFORD

●●●●; *Top Products*, November 2004; $599; www.hp.com

in just about any image.—JACKIE DOVE

●●●●; February 2005; $90; www.adobe.com

Best Fine-Art Printer

Hands down, the Epson **STYLUS PRO 4000** is the best large-format ink-jet printer on the market right now. Its prints rival those you'd get from a photo lab, with a depth of detail and richness no other current ink-jet printer can match. The printer holds eight UltraChrome pigment-based inks, so you no longer have to switch out photo- and matte-black cartridges. It also offers impressive speed, so it's a good choice for volume printers, as well as photographers looking to sell their work.—KELLY LUNSFORD

●●●●½; June 2004; $2,195; www.epson.com

Best Portable Way to View Photographs

The Epson **P-2000** photo viewer means that you'll never again have to worry about running out of room for your digital snaps. Just insert your CompactFlash or Secure Digital (SD) card into this sleek 40GB hard drive, and clear the card for new pictures. But what makes this picture viewer really stand out is its screen—a high-resolution, 3.8-inch LCD that displays stunning detail and beautiful colors.—KELLY LUNSFORD



$500; www.epson.com

MORE TOP HARDWARE PRODUCTS

Best Keyboard Alternative

Thanks to the **INTUOS3**, if you use your Mac primarily as a drawing tool, you may never have to touch a keyboard again. The latest in Wacom's line of drawing tablets features two great innovations: ExpressKeys (eight programmable buttons that can trigger recurring commands) and Touch-Strips (configurable trackpadlike strips for scrolling and zooming). Those, plus the easy-grip pen, are all you need to run all sorts of graphics apps while your keyboard gathers dust.—PHILIP MICHAELS



★★★★½; January 2005; 4-by-5-inch model, $220; 6-by-8, $330; 9-by-12, $450; www.wacom.com

Best Server Hardware for Mac Fans

While its forays into consumer electronics have been getting all the headlines, Apple's moves in another direction—the enterprise-level server business—are plaudit-worthy, too. This year, the company managed to cram the high-heat G5 chip into its skinny **XSERVE** rack-mounted server, and it expanded the capacity of its 3U **XSERVE RAID** to 5.6 terabytes—upgrades that allow the Xserve to compete with Intel boxes in high-end markets.—JIM DALRYMPLE

Xserve G5: ★★★★½; single-processor, $2,999; dual-processor, $3,999; October 2004; www.apple.com

Xserve RAID: ★★★★½; 1TB, $5,999; 2.8TB, $8,499; 5.6TB, $12,999; October 2004; www.apple.com



Best Way to Watch TV on Your Mac

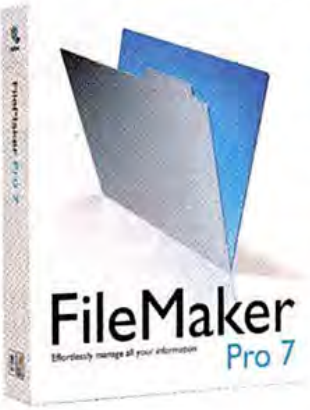
Elgato Systems' **EYETV 200** is like TiVo for your Mac. It lets you watch TV on your Mac's screen, but its true power lies in its ability to pause, replay, search, schedule, and record that TV. Its high-quality MPEG-2 encoder means that your favorite shows not only look good, but also (thanks to tight integration with Roxio's Toast) are ready to archive to DVD.—JONATHAN SEFF

★★★★; July 2004; $329; www.elgato.com

[SOFTWARE]

MOST IMPROVED DATABASE

FILEMAKER PRO 7 is no mere update to a venerable product. Instead, it's the most significant overhaul of the most widely used Mac database app since FileMaker went relational back in 1995. This time around, FileMaker has ditched its limit of one file for each distinct class of data. With FileMaker Pro 7, you can put everything into a single file, streamlining data structures. The program even lets you open multiple windows within the same file to show different sets of records. Throw in some changes designed to appeal to network administrators (it's easier than ever to configure access privileges and deal with passwords), and you've got an upgrade that's a must-have for almost any FileMaker use—and one that just might win over a few new converts.—PHILIP MICHAELS



★★★★★; October 2004; $299; www.filemaker.com

MOST IMPROVED PAGE-LAYOUT PROGRAM

"Quark doesn't care" has been a complaint of Quark customers for years. But **QUARKXPRESS 6.5** may help quiet those complaints. This upgrade is free to registered users of version 6, and it's no minor bug fix: version 6.5 builds new image-editing tools into the app (or, to be precise, into the QuarkVista XTension). You can tweak images in all sorts of ways, applying nondestructive Gaussian blur, unsharp mask, and despeckle filters. You can also import a layered Photoshop file and then turn those layers on and off, select clipping paths, and change opacities and blends. You can save finished images as new image files, again from within XPress. XPress 6.5 won't replace Adobe Photoshop—but it will save you time. Maybe Quark cares after all.—TERRI STONE



free for owners of QuarkXPress 6.0; www.quark.com

BEST TEXT EDITOR

BBEdit is one of the most respected apps in the Mac market, and **BBEDIT 8.0** doesn't disappoint. Bare Bones Software has added more than 100 features to the HTML and text editor. One of our favorites is the Text Factories feature, which lets you create a list of individual text-processing operations and apply them, in order and with corresponding options, to a designated document or set of documents and folders. More than ever, BBEdit is the Mac's best tool for both simple text editing and in-depth HTML coding.—JIM DALRYMPLE



$199; www.barebones.com



BEST MOTION-GRAPHICS APP

Apple's **MOTION** does a lot of the same stuff that Adobe's After Effects and Discreet's Combustion do—but at about a third of the price. It's easy to learn and work with; has cool features such as *behaviors* (which let you simulate gravity, wind, attraction and repulsion between multiple objects, and other movements); and plays nicely with other Apple apps, including Final Cut Pro and DVD Studio Pro. It won't replace programs such as After Effects. But with its combination of performance, simplicity, and price, it'll be joining them in the toolboxes of many graphics pros.—DAN MILLER

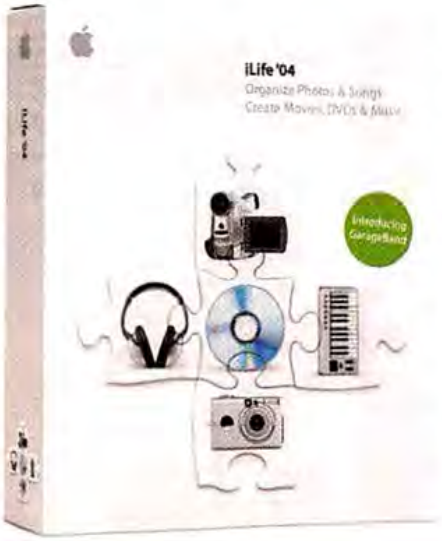
★★★★½; January 2005; $299; www.apple.com

MOST INNOVATIVE BROWSER



Think a browser's a browser's a browser? Don't tell The Omni Group. Its **OMNIWEB 5.01** reimagines the whole idea of tabbed browsing (putting thumbnails of your tabs in a drawer on the window's side), gives you detailed control of your browsing experience (letting you save site-specific viewing preferences, for example), and has all sorts of clever bits that power surfers will love. Sure, it actually costs something. But we think the cool features and awesome interface are worth the price.—DAN MILLER

★★★★; "Untangle the Web," December 2004; $30; www.omnigroup.com



BEST PART OF iLIFE

Just as it did with movies and DVDs, Apple brought music-making to the masses with the inexpensive and easy-to-use **GARAGEBAND 1.1**. Whether your thing is layering built-in loops, playing a MIDI keyboard, or recording live instruments and vocals with nondestructive effects—or a combination of all three—GarageBand is your first step to actually *creating* music instead of just listening to it. And when you're done, you can save your masterpiece to iTunes and share it with the world.—JONATHAN SEFF

★★★★½; May 2004; $49 as part of iLife '04 suite, free with new systems; www.apple.com

GAMES OF THE YEAR



UNREAL TOURNAMENT 2004 is a huge improvement on 2003's installment. The latest incarnation of the popular first-person shooter adds hovercrafts and other nifty vehicles; plenty of new weapons; massive new arenas; and the new Onslaught game mode, which emphasizes vehicle combat and team strategy. Assault mode is back, too (it was missing from last year's installment), so you can defend or attack bases. And in case you like to watch the pros, Unreal TV lets hundreds of spectators watch other players and clans go head-to-head.—PETER COHEN

★★★★½; June 2004; $40; www.unrealtournament.com

Four years after Mac gamers first got a glimpse of it on the keynote stage at Macworld Expo, Bungie's first-person shooter **HALO: COMBAT EVOLVED** finally came to the Mac. Was the game worth the wait? Absolutely. You square off against the Covenant, a menacing alien foe bent on the annihilation of the human race. Compared with its Xbox predecessor, the Mac version boasts myriad improvements, including a 16-person multiplayer mode, new weapons, new vehicles, new maps, and higher-resolution graphics.—PETER COHEN



★★★★★; February 2004; $50; www.bungie.net

READERS' CHOICE AWARDS

Macworld readers are a savvy bunch. You have pretty strong opinions about, well, pretty much everything. (Want proof? Just visit the forums at www.macworld.com.) So a couple of months ago, we asked the denizens of Macworld.com, "What are your picks for hardware and software products of the year?"

After collecting hundreds of nominations, we whittled them down to the favorites and then put the list up for an online vote. When the dust cleared, there were two clear winners. And those winners are:

Apple iMac G5

If there was a no-brainer product of the year for readers and editors alike, it was Apple's latest line of consumer desktops, the iMac G5. It received the most reader nominations and won a handy 46 percent of the final vote. The closest runners-up also came from Apple: the dual-2.5GHz Power Mac G5, the AirPort Express, and the iPod mini.



Apple Final Cut Pro HD





We had a tighter race in the software category. Nominees included several products that earned Eddys (Toast with Jam 6.0, BBEdit 8.0, and OmniWeb 5.01), as well as several that didn't (Maya 6.0, Launch-Bar 4, Quicksilver 1.0, NewsFire 0.24, and Mellel 1.8). In the end, a product in the latter category won the most votes (30 percent): Final Cut Pro HD 4.5 ($999; www.apple.com).

Products released between November 1, 2003, and November 1, 2004, were eligible for this year's Editors' Choice Awards. Winners were determined by a survey of *Macworld* editors, who based their votes on the quality, utility, innovation, value, and overall excellence of new features in products released during the eligibility period.

MORE TOP SOFTWARE PRODUCTS

Best Desktop Manager

YOU CONTROL 1.2.5 lets you create customized menus just about anywhere you want. You can use these menus to launch apps and find files with a single click-and-hold. It has 15 different modules, including an enhanced iTunes controller, a Clipboard



replacement, a news ticker, and even an improved clock. If you want to make the OS X desktop your own, this is the tool you need.—JACKIE DOVE

★★★★; April 2004; $50; www.yousoftware.com

Best Way to Listen to Non-iTunes Audio

Rogue Amoeba's **NICECAST** is the easiest, most flexible way to broadcast your Mac's audio over a local network or the Internet. It's an audio fan's must-have. And with the release of Apple's AirPort Express Base Station, Nicecast became even better: it extends AirTunes' functionality to *any* audio on your Mac.—DAN FRAKES

★★★★; *Mac Gems*, March 2004; $40; www.rogueamoeba.com

Best Way to Stream iTunes

AirPort Express can stream music from your office Mac to your stereo. Shirt Pocket's **NETTUNES** lets you control those tunes—and more. This AirTunes companion streams your music, acts as a remote control for AirTunes, and keeps your play counts and ratings up-to-date.—JIM DALRYMPLE

$20; www.shirt-pocket.com

Best Way to Transfer Really Big Files

You could use **BITTORRENT 3.4.2** to pirate software and movies, but that doesn't diminish the value of its innovative approach to *legal* file sharing. The software lets multiple users simultaneously upload and download files, for extremely efficient one-to-many distribution. The latest OS X version is a complete rewrite that saves on bandwidth.—JONATHAN SEFF

free; www.bittorrent.com

Best Way to Do Web Research

Need to save information you find online? Softchaos's **WEBSTRACTOR 1.0.1** is a Web researcher's dream. It lets you swiftly download entire Web pages from disparate servers and then edit, annotate, and save just the information you need.—JACKIE DOVE

★★★★; November 2004; $89; www.softchaos.com

Best Family Graphics App

THE PRINT SHOP MAC OS X EDITION 1.0, by Software Mackiev, is perfect for creating calendars, cards, mailing labels, CD and DVD labels, newsletters, business cards, and more, without having to learn a complex desktop-publishing app. Totally rewritten to take advantage of OS X, it also works seamlessly with iTunes, iPhoto, iCal, and Address Book.—KELLY LUNSFORD

★★★★; June 2004; $50; www.mackiev.com

Best Painting App for Nonartists

Alias's **SKETCHBOOK PRO 1.1** puts the fun back into painting on your Mac. Though it doesn't offer the range of artist tools and natural-media effects found in Corel's Painter IX (which costs $429), its simplified interface makes it perfect for sketching ideas, projects, and artwork.—KELLY LUNSFORD

★★★½; December 2004; $179; www.alias.com

Best Way to Burn

TOAST WITH JAM 6.0 makes an already must-have Mac product even better. Roxio now lets you write double-layer DVDs just like the pros in Hollywood. That capability, Dolby AC-3 audio compression, and an enhanced cross-fade editor make this an invaluable tool for all Mac musicians and moviemakers.—JAMES GALBRAITH



★★★★; November 2004; $200; www.roxio.com

Best Way to Capture Your Screen

Ambrosia Software's **SNAPZ PRO X 2.0** goes well beyond Apple's built-in screen-capture utilities. It'll grab whole screens or just specific windows and menus. Plus, it can record what's happening on your screen as a QuickTime movie, and it can record audio, too. It's perfect for tutorials or archiving video.—PETER COHEN

★★★★½; *Mac Gems*, May 2004; $29; with movie capture, $69; www.ambrosiasw.com

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Macworld

Dialing for Less

Even in the age of e-mail and iChat, sometimes it's easier to pick up the phone. After all, you can get an instant response, and it's nice to hear a voice once in a while. Now you no longer have to stray from your Mac when you want to call home. New software phones, or *softphones,* let you make long-distance (and even overseas) calls at a fraction of the cost of a regular phone call—and in some cases, for free.

I can almost hear you saying "So what? I can talk to people with iChat now." True, you can use iChat to text-, video-, and voice-chat with others, but there are some major differences between that program and a softphone. Most important, iChat allows you to converse only with Mac users also running iChat and with Windows users running AIM 5.5 or higher. A softphone allows you to use your Mac to talk to anyone who has telephone service.

In this article, I'll look at how softphone technology works. Then I'll walk through a setup with Skype (www.skype.com), a popular application now available for Mac OS X.



How It Works

Softphones are based on Voice over Internet Protocol (VoIP). When you use VoIP, you send voice data over packet-based networks (for example, the Internet) instead of over traditional telephone networks. VoIP achieves this feat by relying on several proprietary audio codecs that compress the voice data before sending it and then decompress it on the receiving end. Skype's codecs, for example, deliver bit rates between 3 and 16 Kbps, depending on the amount of available bandwidth.

Until recently, VoIP required a small hardware device that you plugged directly into a cable or DSL modem (no computer required). You could then connect any standard telephone to that device and receive a dial tone. A softphone essentially lets you replace the hardware box with your computer. It uses a Mac's built-in microphone and speaker, and relies upon today's processing power to convert analog audio to digital.

Why Skype? Several companies make Mac-compatible softphone software, including Vonage (www.vonage.com) and SIPphone (www.sipphone.com). Both require a monthly account, and both license X-Ten's softphone software (www.xten.com). So why did I pick Skype for this article? Chiefly because it's free, it's easy to try out, and it already has many subscribers (Skype says that it has distributed more than 28 million copies of its software). You can make free computer-to-computer calls only with others who sign up.

Skype relies on the public Internet to transmit voice data, so it's susceptible to quality degradation during peak traffic periods. My testing produced acceptable results, with voice quality on par with what you'd expect from a digital mobile phone (and without the delay you often encounter when using iChat). As with a cell phone, dropouts happen and you can lose a call entirely during peak traffic hours. And Skype uses the almost unbreakable 256-bit AES (Advanced Encryption Standard) to keep your calls private.

More Features for More Money Skype won't do if you're looking for features such as a number where you can receive traditional phone calls, a Web-based dashboard that lists your recent calls and gives you access to call-forwarding and voice-mail settings, or the ability to receive voice-mail messages via e-mail attachments. If that's the case, you should subscribe to a for-pay service such as Vonage or SIPphone, both of which charge about $25 per month for unlimited calls to the United States and Canada.

Get Started with Skype

Ready to start dialing? Begin by downloading the Skype client software for Mac OS X. After installation, you select a user name and password. Once you see the program's main interface, log in—and you're online (see "Skype Central").

Assemble Your Gear To get the best call quality, you need a high-speed Internet service such as DSL or cable. You'll also want to use a headset (or handset) for your Mac. Although the built-in microphone on your Mac or iSight will do, a headset will help eliminate echo and background noise. Note that Mac users haven't been able to get Bluetooth headsets to work with the Skype beta. (See find.macworld.com/0147 for more information.) SIPphone's $15 SIP Handset (pictured; www.siphardware.com/siphandset.html) saves you multiple visits to the Sound preference pane. Pick it up to dial, and all audio routes through it. Hang it up, and

audio automatically goes back through your speakers. Unfortunately, you need Griffin Technology's $40 iMic adapter (www.griffintechnology.com) and possibly a speaker adapter to make the SIPphone work.

Testing, Testing Test your sound setup by calling the testing robot. Type `echo123` into the field in the bottom half of the My Skype tab and click on Call. A voice-mail greeting asks you to record a message that Skype then reads back to you. If you can hear your repeated message, you've set up your audio properly.

Find Your Friends To call someone, you need his or her Skype user name—simply type it into the field in the bottom half of the My Skype tab and click on the Call button. If you don't have the user name, click on the Search For Users button or select Find Users from the Contacts tab. Find Users allows you to search the Skype directory by user name, full name, e-mail address, phone number, or even age, city, state, country, language, or sex. While most people will use Skype as an inexpensive alternative to a traditional long-distance carrier, the service has great potential as a research resource or even a dating service.

Ring Up Regular Phones If you don't want to talk to people only when they're at their computers, buy SkypeOut minutes. With this service, you can make inexpensive calls to land-line (or in some cases mobile) phones anywhere in the world. International calls are the same price as local ones. For example, a SkypeOut call from my PowerBook in Pennsylvania to my neighbor's phone (not his computer) in Pennsylvania costs the same as calling a phone in London, Moscow, or Stockholm.

At press time, the SkypeOut Global Rate was €0.017 (at press time, about 2 cents) per minute. This covers calls to numbers in 20 countries, including the United States (except Alaska and Hawaii), the United Kingdom, France, Australia, Germany, Italy, Spain, and Sweden (see find.macworld.com/0148 for details). Unless mobile phones are specifically mentioned, SkypeOut rates are for calling land lines only. Calls to mobile phones are usually more expensive.

SkypeOut credits are available in two denominations—€10 and €25. For €10 (about $13), you get almost 10 hours of talk time at the Skype Global Rate, while €25 (about $32) gives you close to 25 hours. To purchase SkypeOut credit from the Web site, you must use either a Visa or a Diners Club card *and* Internet Explorer. (At press time, the site didn't work with Safari.)

Making calls with SkypeOut is easy. First, make sure you have enough credit for a one-minute call to your destination. (The My Account section of the My Skype tab lists your balance, or you can check it by logging into the My Account section at www.skype.com.) Enter a plus sign (+) and the telephone number (including the country code) in the field and click on Call.



Skype Central From Skype's main window, you can make and receive phone calls, search for other users, and send files.

Hello? When someone calls *you* through Skype, you'll hear a friendly phone ring. Answer the call by clicking on the Answer button. You can then opt to add the caller to your Skype contact database or block a nuisance caller. If you don't know the caller's identity, you can review his or her online profile. For privacy and security reasons, I don't recommend completing *all* of the fields in your own profile.

Handy Extras While you're connected with a caller, you can send him or her an instant message, a file, or selected contacts—handy if you want to send a buddy the user names of mutual Skype friends. You can also perform typical phone actions, such as muting an active call.

The Skype client for Mac OS X that I tested is the first beta version (0.9.0.1). You'll find troubleshooting advice in the Skype Mac OS X forums at find.macworld.com/0149.

Dialing for Fewer Dollars

Thanks to softphones, you have a whole new way to keep in touch. If you've got friends, family, or colleagues living abroad and you're tired of paying hefty long-distance charges, check it out. After all, free is a hard price to beat. □

JASON D. O'GRADY is the editor of O'Grady's PowerPage (www.powerpage.org) and a chapter editor for *The Mac Panther Bible* (Peachpit Press, 2004).

CHECK IT OUT

Never Lose Another Book



Do you have an Excel spreadsheet on your hard drive that catalogs all your books, music, and movies? Or do you *wish* you had one every time you waste time looking for something you lent out long ago? Then check out Delicious Monster's new $40 (competitive upgrade, $30) **Delicious Library** (www.delicious-monster.com). Scan a bar code with your iSight or bar-code reader, and the program adds the item to your digital shelves. To save typing time, it downloads data from the Internet, including the author, the release date, a description, and a picture of the cover. (It will even recommend similar items and help you buy them from Amazon.com.) Best of all, the program helps you keep track of items lent to friends or colleagues; it uses Address Book and iCal to remind you when it's time to get them back.—SCHOLLE SAWYER MCFARLAND

PHOTOGRAPHY BY PETER BELANGER; ICON BY PAUL HOWALT

Inside the iPod Photo

With a color screen that displays your favorite pictures, the iPod photo is a beauty to behold. It's easy on the ears, too—the 40GB ($499) and 60GB ($599) models carry enough tunes to turn your life into a music video (see our review, page 26). But look deeper: there's a lot more to the newest iPod. From powering business presentations to turning your TV into a digital picture frame, learn how to put the iPod photo to work.

Loading Your Photos

Syncing your photo library to your iPod photo isn't much different from syncing your music. In fact, you use the same program for both tasks—iTunes 4.7.

iTunes can sync photos from anywhere on your Mac. You just need to tell it where your files are located. To do this, open iTunes 4.7's iPod preference pane and click on the Photos tab. Turn on the Synchronize Photos From option and select the appropriate location from the pull-down menu. You can choose to synchronize with iPhoto, your Pictures folder (located in your user folder), or any other folder on your Mac (just click on Choose Folder to select the one you want).

If you don't want to copy all the photos in the selected location, you can use the Copy Selected Albums Only option to narrow the focus to a specific album (if you're using iPhoto) or subfolder (if you're using one of the other options). So, for example, if you don't want to carry around every image you've ever taken, you can instead create a Smart Album in iPhoto that contains just your favorite photos (anything you've rated with four or more stars), and then sync only this album to your iPod.

When you click on OK, iTunes creates low-resolution compressed copies of every image you've selected—using a format that only the iPod can read—and transfers these files to your iPod.

The next time you attach the iPod to your Mac, iTunes will compare its files to the selected albums or folders and make any necessary updates.

Accessing Stored Photos

Just as iTunes doesn't let you synchronize your music on multiple computers—at least not without some third-party help—it doesn't let you synchronize photos between multiple computers. If you plug your iPod photo into a different computer, iTunes gives you the option of either replacing all your current files with those from the new computer or ignoring the new computer's photos entirely.

On the other hand, your music and photos don't have to be linked to the *same* machine. This is useful, for example, if you keep an extensive music collection on your Mac at work, but store your photos on your home Mac. If you choose to do this, keep in mind that you'll have to confirm your linking choice each time you plug your iPod into one of the computers.

Manual Override While you can't use the iPod photo to automatically sync photo collections between multiple computers, you *can* use it to manually transfer photos from one machine to another.

Run Presentations from Your iPod



Do you wish you could give a Microsoft PowerPoint presentation without having to lug around your laptop? If you have an iPod photo and a projector with composite or S-Video inputs, you can.

Step 1 Open your presentation in PowerPoint. Choose File: Save As, and set the Format to TIFF. (Since iTunes compresses the file when you import it into your iPod, you should use the highest-quality image possible.) Then save your presentation slides to a new folder on your desktop.

Step 2 Open iPhoto and create a new album for your presentation slides. Drag the folder of presentation images from the desktop to this new album. After iPhoto finishes importing the images, open the new album and make sure all the slides are in the correct order.

Step 3 Copy the new album to your iPod photo by selecting it in the Photos section of your iPod preferences.

Step 4 When it's time to give your presentation, connect your iPod photo to the projector. Go to the iPod's Slideshow Settings menu and set Time Per Slide to Manual—so you can decide when to advance to the next slide rather than having a set timer—and then set TV Out to On. You should also set Music to Off. Then open the album that contains your PowerPoint presentation and begin the slide show. You won't get the variety of fancy slide transitions that you would with a live presentation—the iPod offers only wipe transitions—but you will be able to fit your hardware in the palm of your hand.

For Keynote Users Apple's Keynote presentation software doesn't let you save slides as images. If you want to play your Keynote presentations from an iPod photo, you'll need to either export the presentation to PowerPoint or use a utility such as ZappTek's $18 iPresent It (www.zapptek.com), which creates and manages iPod photo–compatible slide shows from Keynote and PowerPoint.



Create iPod Flipbooks

While you probably wouldn't want to watch a three-hour epic on a two-inch screen, it would be fun to play short video clips on the iPod photo—for example, to show off your child's first belly flop or Uncle Joe's dramatic interpretation of the chicken dance at last year's family reunion.

Despite the iPod's lack of video support, you can create your own thumb-powered movies by breaking video into a series of individual frames and then quickly scrolling through them on your iPod. Remember those paper flipbooks from your childhood? Think of this as a digital version. Here's how to create one of your own:

Step 1 Find a video clip you'd like to use. You can use any video format that QuickTime Pro supports (go to find.macworld.com/0195 for a list). However, this project works best with movies that don't require sound—though it's possible to sync your scrolling speed to an exported sound file, it's no easy task.

Open the movie file in QuickTime Pro ($30; www.apple.com) and choose File: Export. Under the Export options, choose Movie To Image Sequence. Then click on the Options button and select an appropriate frame rate (I recommend 15 fps). Set the Image Format to JPEG, and then save the images to a new folder.

Step 2 Although the iPod can import images from any folder on your hard drive, you'll get better results by first importing the images into iPhoto. (The Finder tends to sort files incorrectly—a disastrous move for this project.)

Drag the newly saved images into a new album in iPhoto. Once the import process is complete, go through the album to make sure that the images appear in the right order.

Step 3 Open iTunes and use the iPod preferences to copy the new album to your iPod photo.

Unfortunately, the iPod's fastest slide-show playback speed is a mere 2 seconds per image, which is far too slow to produce smooth video. So you'll have to control the playback manually. Select the photo album that contains your video frames, and then click on the first image to display it in full-screen mode. Use the iPod's Click Wheel to fast-forward through the images (by scrolling clockwise) at whatever speed you like.

To do this, first make sure that the iPod is set up for disk use. In iTunes, open your iPod preferences, click on General, and select the Enable Disk Use option. Then click on the Photos tab. At the bottom of the window, turn on the Include Full-Resolution Photos option, and click on OK. iTunes will place a copy of each photo's original file on your iPod.

Although you can't preview these full-resolution files on your iPod photo, you can access them as you would any other data files, such as a Microsoft Word document or an iPod notes file. Click on the iPod icon (located in the Finder window's sidebar or on the desktop) and go to Photos: Full Resolution. There you'll find all your photos organized by year, month, and date, in a series of cascading folders.

If you download photos to the iPod from your digital camera (via Belkin's $80 Digital Camera Link or $100 Media Reader [www.belkin.com]), those photos go into a separate DCIM folder at the root level of the iPod. As with other full-resolution files, you can't view these photos on the iPod.

Across Platforms You can attach a Windows-formatted iPod photo to your Mac with no problem—but it will sync more slowly than a Mac-formatted iPod. To exchange files with a Mac-formatted iPod photo, a Windows PC will need to have the latest version (2.0.11) of Mediafour's $30 XPlay 2 installed.

Tip You can maximize the iPod photo's screen real estate by cropping photos to the correct aspect ratio. In iPhoto, set the crop constraint to 8 × 10.

Putting Your Best Photos Forward

The iPod photo's color screen generally does a good job of displaying photos. But with only two inches of real estate, there are limits to its power. Bright, high-contrast images tend to look best; gray, muted photos appear, well, even more gray and muted. You may want to keep this in mind when selecting photos to include.

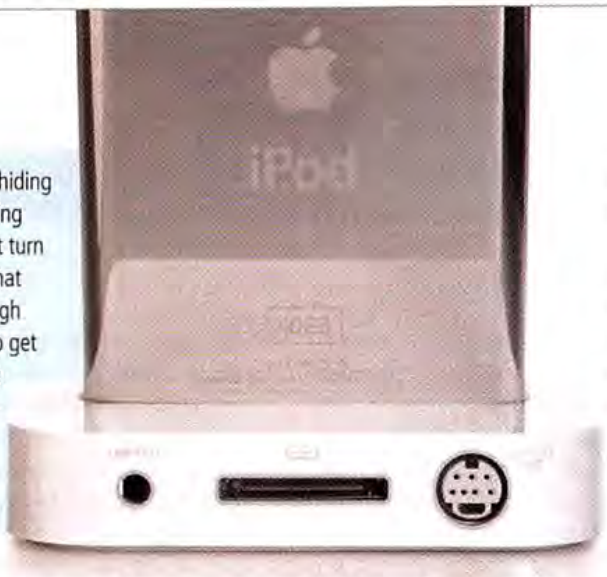
Another issue is the shape of the screen. Most digital photos have a 4:3 aspect ratio. But the iPod photo's screen has a 5:4 aspect ratio, so you'll likely see black bars along the long edges of your images.

If you want your images to fill up the screen, try cropping them. This has the additional benefit of let-

continues



PHOTOGRAPHY BY PETER BELANGER



Tip Instead of hiding the TV during your next party, why not turn it into a picture frame that randomly shuffles through your favorite photos? To get the best quality, use the S-Video and audio line-out ports on the back of the iPod dock to make the connection.

ting you focus in on your subject—for example, to devote more of your image to smiling faces and less to the wall behind them. If you're using iPhoto, click on the image you want to crop, go to Edit mode, and choose 8 × 10 from the Constrain menu. (This is the same as the aspect ratio of the iPod's screen.) Position the cropping square over the part of the image you want to keep, and then click on Crop. If you'd like to keep a copy of the photo in its original form—in case you want to print it at a different aspect ratio, for example—duplicate it before cropping (control-click on the photo and choose Duplicate). Then create an album just for your cropped images, and sync only this album to your iPod.

Viewing Slide Shows on a TV

If you're sharing your photos with a large group, forget about having everyone huddle around the iPod's tiny screen. Instead, move the slide show to the big screen by hooking it up to a TV or a projector.

The iPod photo comes with a composite AV cable for this task. You simply plug one end of the cable into the iPod's headphone jack and the other into the video and audio inputs on your TV. However, you'll often get better audio and video quality by making the connection from the iPod's dock, which offers S-Video–out and audio line-out ports.

The iPod-to-TV connection works well, though you have to be careful about the order in which you perform certain actions. For example, if you have a picture on the iPod's screen when you string the composite cable between the TV inputs and the iPod, that picture won't pop up on the TV. You must make the connection first, and then start a slide show. If the image still doesn't show up, go to Slideshow Settings (under the Photos menu) and make sure that the TV Connection option is set to On.

By the way, you're not limited to hooking up your iPod to a TV or a projector. For example, you can also use the AV cable or the dock's S-Video port to plug your iPod into a VCR or camcorder and record a slide show from your iPod. This way, your parents can replay the slide show of their grandson's first year long after your visit.

Finding Accessories

In the past couple of years, an entire industry of iPod accessories has emerged—everything from voice recorders to flashlight attachments to portable speaker systems. But before you run out and stock up on cool extras, be aware that not all of them will work with the iPod photo.

Although the iPod photo is similar to the 40GB fourth-generation iPods (all the jacks and ports function identically), the new models are about 1.5mm thicker. And that's a big problem for some accessories—notably, speakers and stands that use a docking station to hold the iPod. For example, the iPod photo won't fit in Altec Lansing's inMotion iM3 speaker system (www.alteclansing.com), and it's uncomfortably tight in JBL's On Stage system (www.jbl.com). (Both companies are working on a solution.) It also won't fit one of our favorite FM transmitters, the Sonnet PodFreq (www.podfreq.com), which lets you play your tunes through a car radio.

Any accessory that connects to the top of the iPod—via its headphone or remote jacks—should be compatible with the iPod photo. You should also be able to use devices that connect to the iPod's docking port via a cable or adapter, such as SendStation's Pocket Dock series (www.sendstation.com). For more details on iPod photo compatibility, go to find.macworld.com/0194. □

Serious Photo Viewers

Despite its new photographic talents, the iPod photo is first and foremost a *music* player. It's great for taking some of your favorite photos wherever you go, but it can't handle serious photo tasks. Even if you use a device such as Belkin's Digital Camera Link to transfer photos from a digital camera to your iPod, you can't view these photos once they're on your iPod. You also can't zoom in on photos, delete unwanted photos, or organize your photos in separate albums while on-the-go.

If photography is your main interest, you may be happier with a dedicated photo viewer, such as the $500 **Epson P-2000** (see "*Macworld*'s 20th Annual Editors' Choice Awards," page 71) or the $470, 40GB **SmartDisk FlashTrax** (www.smartdisk.com). Although bigger than the iPod, these compact devices are packed with photographer-friendly features such as large LCDs (the P-2000 has one of the most attractive screens we've seen), photo-management tools, 40GB or larger hard drives, and the ability to download directly from a CompactFlash card. They can also play video and music files—and they cost the same as (or less than) a 40GB iPod photo.—KELLY LUNSFORD



Contributing Editor CHRISTOPHER BREEN answers readers' questions in the monthly *Mac 911* column. He is also the editor in chief of Playlistmag.com. Senior Writer DAN FRAKES is the reviews editor for Playlistmag.com.



PocketDock Line Out

I got one hand in my PocketDock. Experience optimal sound quality when your iPod is connected to your car or home stereo system with this iPod dock adapter. And there's even a FireWire port, whoa.

iceLink

Ice, ice baby. Control your iPod through your car's stereo system and CD changer controls, giving you volume control and track switching, while keeping your iPod secure in a docking cradle.

DENSION



flexDock
The reflex flex flex flex flexDock mini secures and charges your iPod mini in your car and the 3.5mm line-out jack delivers high-quality audio to your stereo.



PodPod
All you do to me is PodPod. Introduce your iPod to your car's cup holder and your thirst for music will never run dry.



PodFM
Calling on in transit ... Enjoy your music through any FM radio. Includes a retractable audio cable, large backlit display, and charging cable.



iGrip
I'm starting to trip, I'm losing my grip ... but not with the iGrip! Keep your iPod, cell phone, whatever on your dashboard.



iPod Connection Kit
Someday we'll find it. The iPod Connection. The cables, the adapters, and me. Everything you'll need to connect your iPod to any stereo.

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CSS Troubleshooting

CSS (Cascading Style Sheets) seems like the answer to your Web-design prayers—until you test your layout in a couple of browsers and see chaotic pages that bear little resemblance to your creation. But you can have your CSS and cross-browser compatibility, too. Creating pages that display well in many browsers often requires—instead of following the letter of the CSS law—outsmarting those browsers' display quirks.

Microsoft Internet Explorer for Windows

Windows Internet Explorer (IE) dominates the Web-browser market. The majority of Web surfers use IE 6, but version 5 for Windows (Win IE 5) is still common. Win IE 5 exhibits many strange display behaviors that you can overcome with clever tricks.

Box-Model Muddle The most significant bug in Win IE 5 affects its understanding of the CSS box model. CSS treats any piece of content on a page, whether it's a paragraph of text or a graphic, as a box. Each of the four edges of the box may have various properties, such as a margin that separates the box's content from content around it, a border that adds a colorful line around the content, and padding that adds space between the content and its border.

According to CSS, the total width of any box element is equal to the total width of all components of the box: the total amount of the box's width property, left and right margins, left and right borders, and left and right padding.

Say you're creating a sidebar element to display your site's navigation buttons. In the style used to format this sidebar, you set the width to 150 pixels and add 15 pixels of margin, a 1-pixel border, and 10 pixels of padding. In CSS math, that's 150 + 30 (for the margins) + 2 (for the 1-pixel border on the left and right edges) + 20 (for the padding on both sides), or 202 pixels. So most browsers will give this sidebar element 202 pixels of space on the page.

Win IE 5 takes a different approach. Rather than allotting 150 pixels to your content and then adding the widths of other elements, Win IE 5 makes the entire box 150 pixels wide—leaving only 98 pixels for the actual content. This same bug affects Win IE 6 in quirks-mode (see "Get It Right from the Start").

To get around this bug, use a simple hack that tricks the browser into using a different width. First, determine what width Win IE 5 needs to get it right. (In our example, that's 202 pixels.) Then add a Win IE 5–only style to your style sheet:

```
.sidebar { /*this is the style for other browsers*/
    border: 1px solid black;
    width: 150px;
    margin: 15px;
    padding: 10px;
}
* html .sidebar {
    width: 202px; /* trick IE5 Win */
    w\idth: 150px; /* reset width for IE5 Mac and IE6 */
}
```

The first style is understood by most browsers, while the second style is a trick.

The first declaration in the second style sets the width to 202 pixels, but since it also affects Mac IE 5 and Win IE 6, you need one more hack to steer those browsers back on course. The second declaration isn't a typo: `w\idth: 150px` returns the width to the correct value for Mac IE 5 and Win IE 6 (but not Win IE 5).

This hack points out that the best defense can be a good offense. You'll often find that your

CHECK IT OUT

Dreamy Photos

Looking for a way to add creative flair to your photography? If you own a film or digital SLR, check out The Original Lensbaby ($96; www.lensbabies.com).

Created to mimic the effect of a Holga camera, the Lensbaby is a flexible lens attachment that lets you selectively focus on a small portion of an image by bending and squeezing the lens tubing. Parts of the image outside of the focus area become increasingly blurred and prismatic (see "A Vision in White").

You can buy Lensbaby attachments for most SLR cameras. One thing to keep in mind is that the lens doesn't communicate electronically with your camera body, so you'll need to work in manual mode.

For some sample photographs taken using the Lensbaby, such as this one by Craig Strong, go to find.macworld.com/0223.—KELLY LUNSFORD



A Vision in White No, your vision isn't blurred—the photograph is, thanks to The Original Lensbaby.

Get It Right from the Start



What's Up, Doc? Omitting just a single line of code—in this case, a proper document-type declaration—can make a solid CSS design (left) lose its balance (right) in Microsoft Internet Explorer 6 for Windows.

Although CSS gets all the attention, HTML is still the foundation of any Web page. Every page should begin with the proper *doctype*, or document-type declaration. Many Web browsers change the way they display a page based on the doctype. For example, without a proper doctype, Win IE 6 falls into what's called quirks-mode, abandoning the correct display of CSS in favor of the quirky behavior of earlier Microsoft browsers (see "What's Up, Doc?").

The doctype you should use depends on the kind of HTML you write. The most common types now are HTML 4.01 and XHTML. For HTML 4.01, begin the HTML page with the following:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
```

XHTML documents require this doctype:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD XHTML 1.0
Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/
xhtml1-transitional.dtd">
```

There are several flavors of doctypes for handling frame sets and for accommodating stricter HTML rules. You can find a complete list and information at find.macworld.com/0221.

The doctype declaration must appear as the first line of a Web page; if you include just one space before the doctype, some browsers revert to quirks-mode.

Display problems can also occur if you've made a mistake in your HTML. To make sure that your code is correct, run it through the W3C Markup Validation Service at http://validator.w3.org/. Apple also has instructions for installing the validator on your computer (find.macworld.com/0222).

designs behave well in all browsers *except* Internet Explorer. In these cases, use the `* html` hack to feed different values to IE. The order in which you write your styles is important. If the order were reversed in the preceding example, the hack wouldn't work.

Float Failure Try to indent a *float* (an element that aligns to the left or right and allows other content to flow around it), and you'll discover that Win IE doubles the size of this indent. Say you create a style for pull quotes that appear within the text of an article. You want each pull quote to align to the right side of the Web-browser window, but you want to indent it 15 pixels from the edge of the window so it doesn't touch the edge. You could create this style:

```
.pullquote {
  float: right;
  width: 150px;
  margin-right: 15px;
}
```

Unfortunately, Win IE doubles this margin. When the margin is relatively large, such as 50 pixels, or the page layout is very precise, the added space can ruin your design. Fortunately, the answer is simple—just add `display: inline` to the float style:

```
.pullquote {
  float: right;
  width: 150px;
  margin-right: 15px;
  display: inline;
}
```

Every other current browser ignores this nonsense code.

Microsoft Internet Explorer for Mac

Mac IE 5 doesn't suffer from the same bugs that afflict its Windows counterparts. It does, however, understand the `* html` hack. Here's how to hide the hack so Mac IE will see only the correct CSS styles:

```
/* hide from Mac IE \*/
* html .sidebar {
  margin-right: -3px; /* trick IE Win */
}
/* stop hiding from Mac IE */
```

The secret here is the use of the CSS comments. The first line of code contains a CSS comment with an unusual addition, the single forward slash before the final comment code: `\*/`. This single forward slash blinds Mac IE CSS code until it encounters another CSS comment (the last line in the code).

Smarter CSS

You can't control which browsers your site visitors use, and you can't make those browsers display code in the same way. But with these tricks for overcoming cross-platform CSS incompatibilities, your designs will survive. □

DAVID SAWYER McFARLAND is a Web developer and the author of *Dreamweaver MX 2004: The Missing Manual* (O'Reilly, 2004).

ICON BY PAUL HOWALT

Location, Location, Location

To really take advantage of your laptop's portability, you need network access wherever you go. But to maintain that access when you move from one place to another, you have to change a slew of OS X's settings. Fortunately, OS X lets you save specific combinations of these settings as *network locations*. By setting up locations for all the places and ways you like to compute, you can switch between them effortlessly.

The Basics

Think of a location as the sum of all settings you need to connect to a specific network. This includes the network interface you want to use (Ethernet, AirPort, Bluetooth, FireWire, or modem), as well as the TCP/IP settings, proxies, phone numbers, user names, passwords, and more. Whenever you need to get online in a new location, whether it's at home, the office, or your neighborhood café, OS X's location switching lets you change all those settings at once.

To create a new location, open the Network preference pane and select New Location from the Location menu. (You need to be an administrator to create and edit locations, and you may need to click on the lock icon and enter your password first.) Enter a name, such as Office Network, for your location, and then click on OK. Next, click on the Configure button at the bottom of the Network pane to configure your location. Enter all the information you need in order to connect to your network—TCP/IP settings, AirPort settings (such as the name of a specific network to connect to) if necessary, and so forth—and then click on the Apply Now button. Your settings and location will be saved, and your Mac will change to the new location.

Alternatively, you can use the Network Setup Assistant to create a location. Click on the Assist Me button at the bottom of the Network preference pane, and the assistant will walk you through the process, asking questions and offering check boxes and fields where you select and enter settings.

You can also base a new location on an existing one. Say you already have an Office Network location that you use to connect to the network at work via AirPort. Now you want to create a new one that connects to that same network via Ethernet instead. You can create a copy of the first location by selecting Edit Locations from the Location menu, picking the location you want to clone, and then clicking on Duplicate. You can then rename this location (Office Ethernet, say) and adjust the settings you want to change.

What Locations Can Do

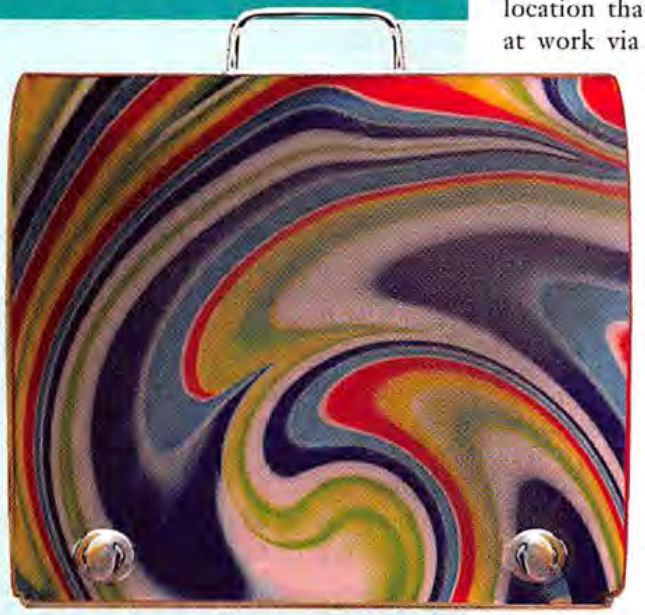
When do you need a new location? You can create as many as you need for all the different places where you get network access, for connecting to different AirPort networks, or for using different network interfaces. For example:

> If you use one AirPort network at home and another at the office, then create two separate AirPort locations for each network, as well as a third that

ICON BY PAUL HOWALT

BAG OF THE MONTH

A Case of You



The **Attaché**, from FFA (www.zattache.com), is a triumph of form over functionality. This laptop case comes in no less than fifteen designs (our favorite was Swirl). Visually, at least, it's a lot nicer than those generic black shoulder bags most of us use to haul our PowerBooks. You can opt for a simple, envelope-like shell, or accessorize with add-ins that'll hold your phone, PDA, files, and more. The Attaché may not be the sturdiest thing we've ever seen—the interior padding looks thin, and the thin shoulder straps look as though they'd chafe quickly. But the company backs it up with a year's warranty, and, after all, why let a little practicality get in the way of style? FFA focuses on the wholesale market (customizing the Attaché for corporate customers) but says that it'll sell to individuals who contact the company online.—DAN MILLER

looks for any available AirPort network, such as one in a café or another public space.

> If you sometimes connect directly through a cable or DSL modem and sometimes through a network hub or router, then create separate locations for each.

> If you need to transfer large files from your portable to a desktop computer, then a location that connects to your home or office system via a direct Ethernet connection (or even via FireWire) will provide faster throughput.

> You can even create a location that turns off all your network interfaces. This allows you to work offline and be sure that none of your applications try to connect to the Internet—and that no one can connect to you. Such a location is good when you're really trying to save your laptop's batteries: even if you're not connected to a network, AirPort will still use up some of your precious power if it's on, thus shortening your battery life.

Easy Ways to Switch

Once you've set up your locations, you have several ways to switch from one to another.

The simplest way is to go to the Apple Menu, select Location, and then choose a location from the submenu.

Command-line mavens have another option: using Terminal to see the current and other locations. (This is especially useful if you need to make a login change to a remote Mac that's running as a server.) From the Terminal command prompt, type `scselect`. This will return a list of all the available locations, with an asterisk in front of the presently active one.

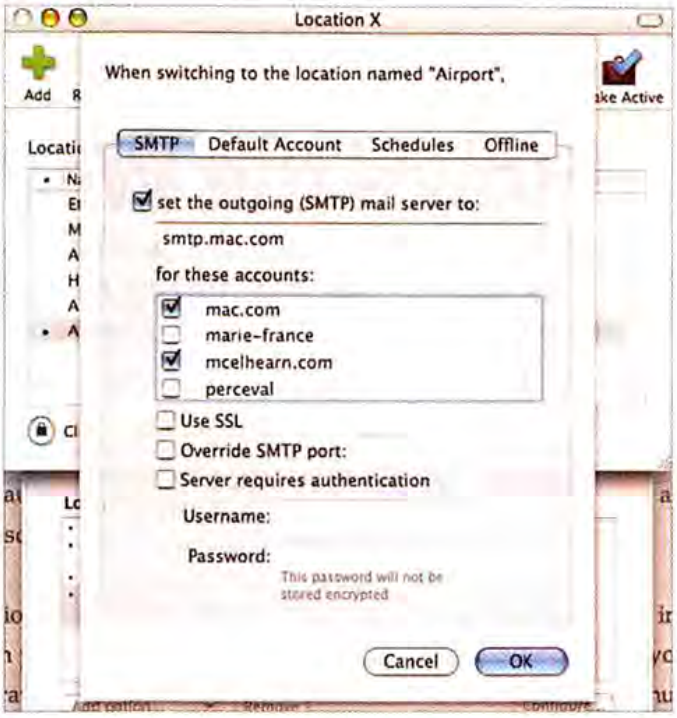
```
$ scselect
Defined sets include: (* == current set)
   3    (Ethernet)
   5    (Modem)
   4    (Office AirPort)
   2    (Home network)
   0    (Automatic)
 * 1    (Airport)
```

To change locations, run the `scselect` command with the number listed before the location: for example, in the above configuration, you could switch to Ethernet by running `scselect 3`.

If you use Objective Development's LaunchBar (www.obdev.at), the keyboard-friendly launcher, you can change locations with just a few keystrokes: press ⌘-space, type the first few letters of the location you want to activate, select it from LaunchBar's list, and press enter. Or if you use Startly Technologies' QuicKeys (www.cesoft.com), you can create a macro to change locations with a single key combination.

The X Factor

But if you really want full control over your locations and the ability to change more than just network settings (or if you're nostalgic for the powerful Location feature in OS 9), you'll want to check out Alex Keresztes and Greg Novick's Location X (find.macworld.com/0225). This $20 program lets you set up locations that include your network settings, as well as settings for Apple Mail or Microsoft Entourage, a default printer, a time zone, Energy Saver preferences, and QuickTime.



Drop-Down Drawers Location X's drawers let you see which location settings you can adjust and what your options are for adjusting them.

Location X's control over these additional settings is a real time-saver: when you go from home to the office, for example, you don't use the same printer or mail server; you may need to switch the home page in your browser. Location X can do all this, as well as run shell scripts or AppleScripts when you change locations.

Working with Location X is simple. The program displays all available locations in its top pane. When you select one of these locations, a bottom drawer allows you to configure it. This drawer shows which options have been set, and a pop-up menu lets you reconfigure them as you like (see "Drop-Down Drawers"). Selecting an option lets you see which changes are available.

You can add, remove, and change locations from within Location X. While you can use the Apple menu or other means to change locations, doing so changes only your network settings. If you want to change the additional options, you'll have to use Location X. □

KIRK McELHEARN is the author of several books, including *iPod and iTunes Garage* (Prentice Hall, 2004). His blog, Kirkville (www.mcelhearn.com), talks about Macs, iPods, and much more.

How's the Weather?

What was the hottest day of the summer? How much rain did we get this spring? An old maxim says that weather is what you talk about when you can't think of anything else to discuss, but for as long as I can remember, I've been fascinated by Mother Nature's behavior.

Technology's march has been good to weather watchers like me, not to mention school science programs, weather forecasters, gardeners, and farmers. As a kid, I would look out our kitchen window at a mercury thermometer. As an adult, I've bought overpriced wireless thermometers. But now that I've entered the world of the Mac-enabled weather station, I can publish my weather to the Web and join a network of thousands of weather stations across the globe. I've also learned more about the climate outside my house than I ever expected to.

All weather stations work with PCs, but I spent time with two Mac-compatible ones: Davis Instruments' Vantage Pro (www.davisnet.com) and WeatherHawk's WeatherHawk (www.weatherhawk.com). Here's how to set up your own:



Weather Wonders With its rain-collecting bucket and built-in solar panel, the Vantage Pro (bottom) looks like part of an alien lander. The WeatherHawk (top) is very easy to set up.

Stations for All Seasons

A weather station monitors the local environment and relays information about it to you indoors. The most full-featured ones measure temperature, barometric pressure, humidity, rainfall, wind speed and direction, and even solar radiation.

The top of the Vantage Pro (cabled model, $495; wireless model, $595; optional solar and UV sensors, $400) is essentially a bucket that collects rainfall for measurement; a small solar panel on the front keeps the battery charged. Davis says that one battery should last as long as three years. (See "Weather Wonders.")

A separate attachment contains a wind gauge and a generous amount of cable so you can place the gauge far away from the station if necessary. You might want to keep the station in the backyard, for instance, but mount the wind gauge on the roof. The Vantage Pro was easy to set up, thanks to clear instructions.

You can't relocate the WeatherHawk's wind gauge (cabled model, $1,546; wireless model, $1,846). But there was almost no setup time for the WeatherHawk station itself—the only thing I had to plug in was a separate solar-panel array ($179), which mounts on the same pole as the WeatherHawk station.

Connection Forecast: Stormy

Once your weather station is set up, you need a way to get that data to your Mac. If you don't mind drilling holes and running cable, you can save a little money by buying a weather station that connects via a long cable. To minimize the impact of your weather fixation, opt for a wireless version.

The Hookup Blues Hooking up either of these weather stations to a Mac isn't as easy as it should be. In general, weather stations are designed primarily with Windows PCs in mind, and these two are no exception. So the first big hurdle is the physical connection: both use an old-style serial connection rather than USB. Even the wireless models send back a signal that's received by devices with serial ports.

I used the $79 Keyspan USB Twin Serial Adapter (www.keyspan.com) to connect the Vantage Pro to my Mac. The device for

receiving transmissions from WeatherHawk's wireless station uses a PC-standard serial connector, so I also used a PC-to-Mac adapter cable. Another option would've been Keyspan's $40 High Speed USB Serial Adapter. (My Mac also has a GeeThree Stealth Serial Port, but neither product was compatible with it.)

Consoles and Other Critters While the WeatherHawk station connects directly to your Mac via a wireless receiver box, the Vantage Pro uses an intermediary device: a cool console gadget that you can place on a table or mount on a wall. Both stations come with a *data logger* that collects data even when your Mac isn't running, but Davis's console is even more convenient because it lets you glance at weather data without touching your Mac. It transfers weather data back to the Mac via a custom serial cable. (In case you don't want to put the console near your Mac, Davis also offers the $195 Wireless Weather Envoy.)

With the WeatherHawk, there's no middleman, so there are fewer items to install and connect. I did appreciate the Vantage Pro's console. It even has a sense of humor: during a mid-October downpour, the console suddenly began displaying the text "It's raining cats and dogs!"

It's Raining Data

The entire point of hooking up a weather station to a Mac is that you can do clever things with the data the station collects—for instance, plan for a bumper crop of tomatoes by figuring out when the last day of frost is in your microclimate.

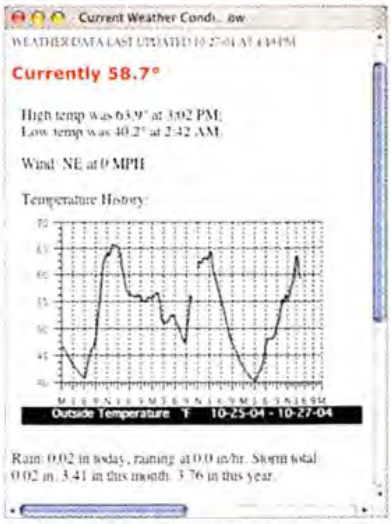
Of course, you can keep a database of weather information on your Mac to sift through at your leisure. But it's more fun to generate Web pages full of live data that can be viewed from anywhere on the Internet. Each weather station's software offers that option, with varying degrees of difficulty.

WeatherLink Davis Instruments weather stations, including the Vantage Pro, work with Davis's $165 WeatherLink for Mac OS X software. WeatherLink isn't quite a native OS X application. It's written in Java and looks (and works) like a Windows application. However, WeatherLink is remarkably full featured. You can view charts and graphs of weather data, and export data you've collected to text files for viewing in applications such as Microsoft Excel.

WeatherLink's most impressive feature is its Web support. Using a set of almost 50 custom tags, you can create Web pages that display live weather data, including graphics generated by WeatherLink itself. In minutes, I was able to create a basic page that listed all the data I wanted to see (see "Backyard Broadcast").

Once you've created a template, WeatherLink will generate an HTML page based on current weather conditions and either save it to a special location on your hard drive or transfer it via FTP to a remote server on the Internet—say, to space on your service provider's Web server.

Sadly, WeatherLink is a bit unstable. It occasionally locked up when the console temporarily lost touch with the weather station, and the Web page wouldn't update again until I canceled the operation and restarted the program.



Backyard Broadcast WeatherLink's HTML templates let you create Web pages full of current data and have them uploaded automatically to a Web server.

WeatherHawk-X On the other hand, WeatherHawk's $146 WeatherHawk-X is a native OS X app; it was written by AfterTen Software (www.afterten.com). WeatherHawk-X provides an attractive view of current conditions. A small graph area can display one of a handful of preset graph types, but it doesn't offer the number of detailed charts, the volume of tags, or the variety of autogenerated Web graphics that WeatherLink does. The program also uploads files only via FTP, even if you just want to save the files to a local folder on your Mac.

National Networks WeatherHawk-X excels in its support for uploading weather data to outside sources. It supports the GLOBE Program (www.globe.gov), a group of school-based weather stations, and Weather Underground (www.wunderground.com), a Web site that collects and displays data from personal weather stations around the country. Five minutes after I'd launched WeatherHawk-X, my home weather was being displayed on Weather Underground.

The Really Local Forecast

Too often, we Mac users are at our computers when we *should* be getting some fresh air. Yes, a Mac-based weather station means you never have to open the door to see what it's like outside. But it also lets you satisfy your curiosity about the world in a whole new way.

Editorial Director JASON SNELL knows the temperature in his yard *right now.*

Desktop Weather



What if you *don't* want to be limited to displaying the data from your weather station in a Web page? Christopher Snell's WeatherStation (http://remoteweather.com/WeatherStation/), a widget for the $25 Konfabulator (www.konfabulator.com), offers a supergeeky solution. By default, WeatherStation works with a Perl-based interface on top of a Davis weather station that requires some serious Unix chops to set up. But I managed to get WeatherLink to generate a Web page in WeatherStation format, which let me display beautiful live weather data on my desktop without having to install the server. Go to find.macworld.com/0193 for details and some template file samples.

Mac OS X Hints

Redistribute your .Mac storage, mark e-mail addresses for unspecified domains in Mail, change the order for List-view columns, burn more data onto CD-Rs, and create a navigable pop-up disk-drive folder in the Dock.

Choose How to Allocate Your .Mac Storage

When Apple increased storage for .Mac accounts from 100MB to 250MB, it didn't clearly explain how to change the way that space was divided between iDisk and your .Mac e-mail. Start by logging in to your account at www.mac.com. Then click on your login name in the top menu (right next to Log Out); .Mac will ask you to enter your password again, and then it'll take you to the Account Settings page. Click on the Storage Settings button, and you can then use the Manage Your Storage pop-up menu on the next screen to control how your 250MB is divided—choose a ratio that makes sense for your needs. As a general rule, you'll probably find that the minimum allocation of 15MB is more than sufficient for e-mail; this leaves 235MB free for all your glorious photo galleries.

See Warnings for Unspecified Domains in Apple's Mail Application

In Mac OS X 10.3's Mail app, you can visually differentiate outbound messages that are headed for a domain other than one you specify (as long as the recipients are in your Address Book). This can be useful if, for example, your company requires that you add a confidentiality signature to e-mail messages bound for people outside the office. To enable the option, just select the Mark Addresses Not In This Domain option in the Composing tab of Mail's preferences. Type in the domain you want to use as the control, and press the enter key. From now on, if you address a new message to recipients outside your control domain, those addresses will turn red as soon as you tab out of the To field.

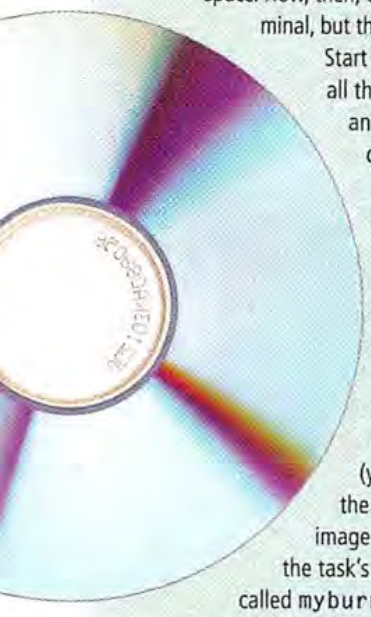
While this is quite useful, what if you want to specify more than one safe domain? Although Apple doesn't clearly document this feature, you can add multiple domains to the option's field—just enter each one and follow it with a comma (see "Outside My Domain"). Even though you can't see all the domains, Mail will include them—a message composed to any domain not on the list will result in the same red address in the To field.



Outside My Domain Apple's Mail can warn you when you've addressed a message to a domain other than those you specify as your controls.

pico /var perl exit UNIX TIP OF THE MONTH

Utilize Extra Space on CD-Rs



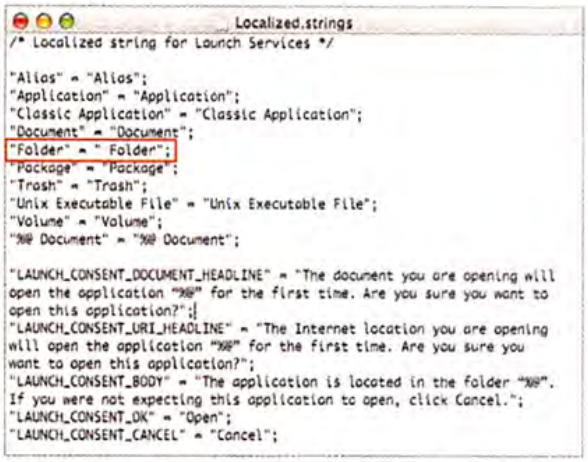
When you burn a CD-R from the Finder, you may be wasting precious space. Many CD-Rs today ship with 700MB of capacity, yet the Finder will only use 670MB of that space. How, then, can you use the extra space? It requires a quick trip to Terminal, but the answer is pretty simple.

Start by creating a new folder in the Finder, and then drag in all the items you wish to burn (up to 700MB). Open Terminal and type `cd ~/Desktop`; then press the enter key (this changes Terminal's active directory to your user's Desktop folder). Now type `hdiutil makehybrid -o myburn.iso` (note that there's a space after the `o` in `iso`), but don't press enter. Instead, switch to the Finder, drag and drop the folder you just created onto the Terminal window, and press enter. Terminal should fill in the full path to the folder, and the enter key will then execute the command. What have you just done? You've just used the `hdiutil` Unix command to create a hybrid disk image named *myburn.iso* (you can choose whatever name you like, but use *.iso* for the extension). You'll see the message "Creating hybrid image" in your Terminal window, as well as an indication of the task's progress. When finished, you should see a disk image called `myburn.iso` on your desktop.

You can now either use Disk Utility to burn this image, or you can just type `hdiutil burn ~/Desktop/myburn.iso` in Terminal—insert a blank CD-R when prompted, and then just sit back and wait. When it's done, you should have a burned CD-R with nearly 700MB of data on it.

Change the Order of Folders Sorted by Kind in List View

If you use List view and sort a folder's contents by Kind, you'll see that any folders within the folder are alphabetically sorted right into the middle of the mix—since their kind is Folder. To most people, however, folders are special entities and shouldn't be sorted with other files in the folder. Here's how to make all your folders go to the top (or bottom) of the list when sorted by Kind.



Sort My Folders Add a space to the Folders line (highlighted above) in this deeply buried system file, and your folders will float to the top of lists sorted by Kind.

The hardest part of this hint is navigating to the file you need to edit. In the Finder, go to System: Library: Frameworks: ApplicationServices.framework: Versions: A: Frameworks: LaunchServices.framework: Versions: A: Resources. *Whew.* Within that folder, you'll see the English.lproj folder. Highlight it, and then select File: Get Info. In the Ownership & Permissions area, click on the Details triangle, click on the lock icon, and then click on the Owner pop-up menu and set it to your user name (enter your password if asked). Leave this window open; you'll be changing it back in just a minute.

Inside the English.lproj folder is a file named Localized.strings. Drag it onto TextEdit. Find the line that reads `"Folder" = "Folder";` and insert a space before the `F` in the second `Folder` (see "Sort My Folders"). To sort folders to the bottom of the list instead of the top, you'll have to use one of four special characters: μ (*mu*), π (*pi*), Ω (*omega*), or (the Apple-logo character)—see *Mac OS X Hints*, November 2004, for more information). Save the file, approving any dialog boxes that may appear. In the Get Info window that you left open, change Owner back to System and then close the window.

Now you need to restart your computer—these values are read only at startup, so a simple logout and login won't do the trick. Once you've restarted, you'll be rewarded with improved sorting. □

CHECK IT OUT

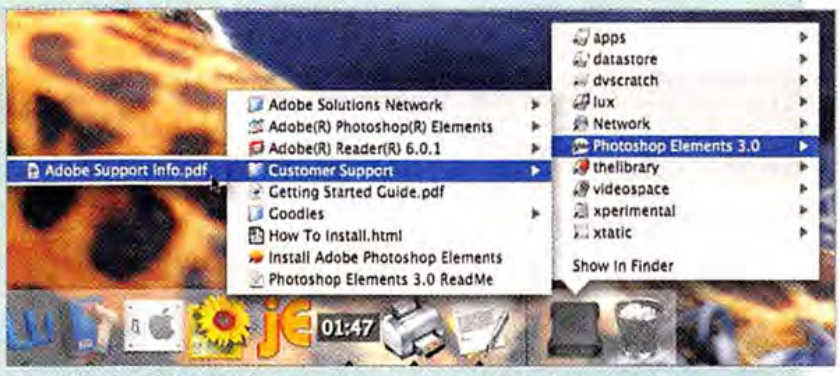
Create a Fully Functional Drive Pop-Up Menu in the Dock

You can use any folder you store after the divider mark in the Dock as a navigable pop-up menu. Just click and hold on the folder, and a new window showing the folder's contents will appear; any folders within that folder will pop open when you roll the cursor over them. This works fine—for everything except your Volumes folder, which contains all your hard drives, CD-ROMs, and other mounted media devices (you can open this folder in the Finder by selecting Go: Go To Folder and entering `/Volumes`). If you try putting your Volumes folder in the Dock, you'll find that your boot disk is hierarchical and that other volumes and CD-ROMs are not. But by using the power of Folder Action Scripts, you can easily create a self-updating, fully navigable Dock pop-up folder.

Start by creating an empty folder called MyDrives in your Documents folder (you might also want to give this folder a nice hard-drive icon from www.xicons.com). Next, download the Update Drive List script at find.macworld.com/0192. Double-click on it to open it in Script Editor, and replace `usernamehere` in the first line with your user name. Save the script and click on the Run button. Then move the script to your user's Library: Scripts: Folder Action Scripts folder (create the last two folders if necessary). This script takes care of updating your MyDrives folder when you insert or remove an ejectable drive, such as a CD-ROM or FireWire device.

In the Finder, choose Go: Go To Folder, and enter `/Volumes`. Control-click on the Volumes folder and choose Configure Folder Actions. In the dialog box that appears, make sure that the Enable Folder Actions option is selected, and then click on the plus-sign (+) button at the bottom left. In the Open dialog box that appears, press ⌘-shift-G, enter `/Volumes` again, click on Goto, and then click on Open. You'll see a pop-up list of scripts to attach; select the script you just put in the Folder Action Scripts folder (it should be near the top), and click on the Attach button. You can close the Folder Actions window when it reappears.

Drag your MyDrives folder into the Dock, and you're done. You've now got a fully navigable pop-up folder that will always show your currently mounted drives (see "Show Me the Path"). Note that every time the script runs, it sends the old aliases to the Trash. So if you often mount or unmount CDs, FireWire drives, and the like, your Trash will get pretty bloated.



Show Me the Path Create an autoupdating Dock folder that contains your mounted volumes to navigate to anything, anywhere, with a simple click-and-hold.

Contributing Editor ROB GRIFFITHS is the author of *Mac OS X Power Hound, Panther Edition* (O'Reilly, 2004) and runs the Mac OS X Hints Web site (www.macosxhints.com).

ICONS BY PAUL HOWALT

Mac 911

Philosophers and physicists say that change is the only constant. To celebrate the shifting patterns of life, this month's *Mac 911* is all about change—changing the color of Safari's links, changing Windows video files into QuickTime movies, and making the changes necessary to eliminate Safari's "can't find the server" messages.

Pinker Links

I've converted to Safari from Microsoft Internet Explorer. I like Safari's speed but miss being able to set the color for recently visited links. I'd also prefer to have more control over the information Safari automatically fills in on forms. Are there ways to customize these features in Safari?

L. D. "Jake" Jacobson

To customize Safari's look, use Cascading Style Sheets—text documents that determine how Safari displays Web pages. To make Safari display links in different colors, create a new plain-text document that includes this formula for changing colors:

```
a:link { color: #9933CC !important; }
a:visited { color: #993300 !important; }
a:hover { color: #FF66FF !important; }
a:active { color: #9999FF !important; }
```

The `a:link` entry is the color of an unvisited link; `a:visited` is the color of a link you've clicked on; `a:hover` is the color a link turns when you place your cursor over it; and `a:active` is the color the link turns when you click on it. The `color: #hexcode` entries are the hexadecimal codes for colors displayed on the Web. (For a list of color codes, see the table at find.macworld.com/0217.) Finally, the `!important` entry overrides a style sheet imposed by a Web site.

To finish the job, save the plain-text document with a *.css* extension, open Safari's Preferences menu, click on the Advanced tab, and choose your new CSS document from the Style Sheet pop-up menu.

If this sounds like too much bother, you can use Lord of the Cows' free Safari Enhancer (find.macworld.com/0218) to change your Safari links.

As for Safari's autofill feature, you can tell Safari what and what not to autofill by configuring your address card in Apple's Address Book. If Safari isn't filling in certain fields, choose AutoFill from Safari's Preferences menu, click on the Edit button next to the Using Info From My Address Book Card, and configure your card in the resulting Address Book window to include the information you desire—your fax number, for example.

Windows Media Conversion

Is there a way to convert Windows Media videos to a QuickTime format so I can import them into iMovie?

William E. Johnson

It depends on the kind of Windows Media movie files you want to import. A tool such as Ronin no Sakurakai Softronics' $15 Forty-Two DVD-VX Plus (find.macworld.com/0219) can convert some Windows movies to a form of AVI file acceptable to QuickTime and iMovie, but it won't work with movies generated by Windows Media 9. Discreet's Cleaner 6 (www.discreet.com) can also convert some Windows Media files to QuickTime, but the product's $549 price tag is a lot to swallow for this seemingly simple operation.

And as much as I hate to suggest such a thing in a magazine called *Macworld*, if you can get to a Windows PC, try Mystik Media's $50 Blaze Media Pro (www.blazemp.com). It can convert Windows Media Video (WMV) files to MPEG-1 format, which you can play with QuickTime (as well as export to QuickTime's native format using Apple's $29 QuickTime Player Pro, and then import into iMovie).

Sleepy Mouse

When my computer falls asleep, my Apple Wireless Mouse disconnects. Do you know how to fix this problem?

Andre Bonk

TIP OF THE MONTH

Quiet Down, iPod!

I've read descriptions of the mysterious noise anomalies in some of the new iPods. The only mystery to me is why Apple claims that it has no clue as to the cause of the problem. The noise is the result of a simple ground loop that occurs when the exposed base of some earphones' ⅛-inch stereo jacks makes contact with the metal chassis surrounding the headphone receptacle on the top of the iPod.

You can easily—and completely—remedy the problem by insulating the base of the earphone jack (that is, wrapping a small amount of Teflon tape around the base of the jack) or by purchasing an inexpensive Radio Shack headphone-volume controller (its ⅛-inch phono jack is fully insulated at the base).

Peter E. Simson

Have patience. No, I'm not being facetious. After a period of inactivity, the mouse goes to sleep to save the battery's charge. After you click on a sleeping mouse, it can take 30 seconds or more to reestablish contact with the Mac. Many people assume that the mouse isn't working properly because Apple's wireless keyboard connects far more quickly. If the mouse refuses to rouse, install the latest Bluetooth software. If that doesn't wake the rodent, give Apple a call. You may have a defective input device.

Avoiding the Browser Two-Step

Lately, Safari has been displaying this message: "Safari can't open the page 'http://www.example.com/' because it can't find the server 'www.example.com/'." I know this is a bad error message because when I press return, the site always loads the second time.

Mike Schell

This problem appears to have been introduced by an Apple security update. Although there's no surefire fix, many people have been able to eliminate the glitch by opening the Network preference pane, clicking on the TCP/IP tab, and entering their ISP's DNS server address in the appropriately named DNS Servers field.

Regrettably, not all ISPs like to share their DNS server addresses. If yours won't cough it up, launch Network Utility (found inside the Utilities folder), click on the Lookup tab, enter your ISP's domain name in the Lookup field, choose Name Server from the window's pop-up menu, and click on Lookup. The DNS server address should appear after the SERVER entry. If you use a router, be sure that the DNS information on your Mac and router match.

Other people have found that installing Java Update 1.4.2 Update 2 (find.macworld.com/0220) fixes the problem.

Send Print Preview Packing

When I try to print my Microsoft Entourage v. X e-mail, I have to go through two dialog boxes—Entourage's Print Preview and, once I click on OK, the regular Print dialog box. Is there some way to keep Entourage from displaying the preview?

Jack Stephens

Peer into Entourage's File menu, and you'll see the Print One Copy command (⌘-option-P). This is the key to avoiding both the program's Print Preview and the Mac OS Print dialog box. The command does exactly what it suggests—prints one copy of the chosen message without further interruption. Entourage 2004 kindly does away with the extra step by placing Print Preview within Mac OS's Print dialog box.

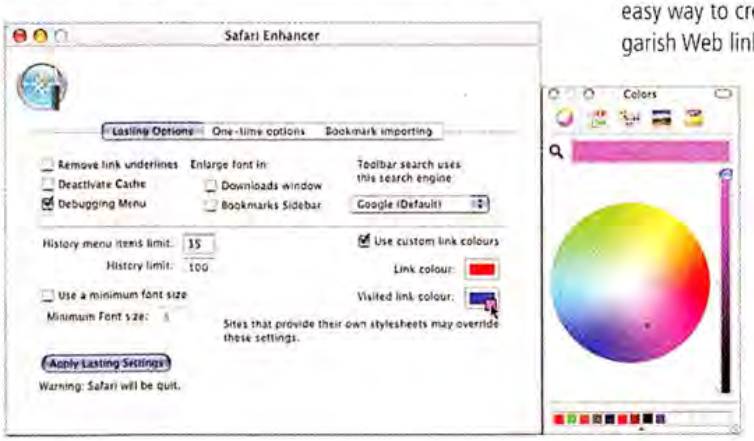
There and Back Again

I bought Mac OS X 10.3 to upgrade from Mac OS X 10.2.8 on my PowerBook. I want to remove unwanted partitions, so it must be a clean installation. But I want to preserve my Mail files, account settings, and junk-mail filters; archive old Entourage messages; and maintain my Network preference settings. I can store this data on an expansion hard drive attached to my Pismo PowerBook. What's the best way to proceed?

Clark Peddicord

This kind of installation cries out for Archive And Install, but you'll have to find another option because you need to wipe the drive to remove the partitions. Rather than try to back up and restore these files (and likely run into permission problems later), do this:

Download Mike Bombich's $5 Carbon Copy Cloner (www.bombich.com/software/ccc.html) and clone your current system to the Pismo's expansion drive. Open the Startup Disk preference pane and choose that expansion drive as the startup disk. Once you've booted from the expansion drive, run Disk Utility and format the internal drive (thus wiping out its data). Install Panther on the expansion drive and use the Archive And Install option. Once you've configured things the way you want them, use Carbon Copy Cloner to clone the expansion drive to the PowerBook's freshly scrubbed internal drive.



Smokin' Links Safari Enhancer offers an easy way to create garish Web links.

Contributing Editor CHRISTOPHER BREEN is also Playlistmag.com's editor in chief and the author of *Secrets of the iPod*, fifth edition (Peachpit Press, 2005).

UNSOLICITED ADVICE

Remove Line Breaks Fast

I don't mean to bore you with the tedious aspects of my job, but it irks me to no end when I copy e-mail messages from Microsoft Entourage into Word and each line of those messages appears as a separate paragraph. Were I working with Bare Bones Software's BBEdit, I could easily pull my text together by choosing Remove Line Breaks from the Text menu. Regrettably, Word doesn't offer such a convenient command.

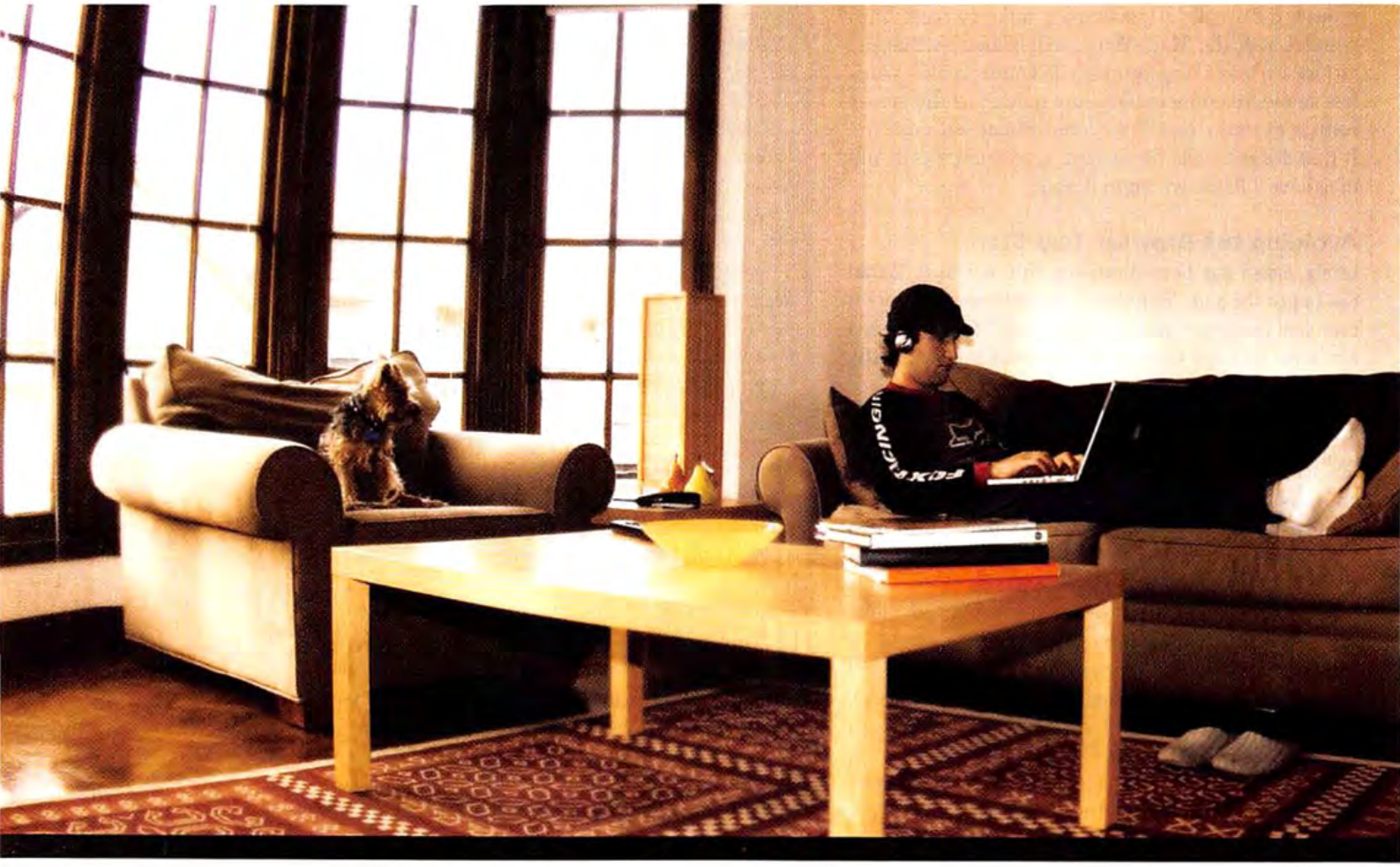
Therefore, I created a macro to do the job for me. Here's the process:

Select the text from which you want to remove the line breaks, choose Macro: Record New Macro from Word's Tools menu, and click on the Keyboard button. In the resulting Customize Keyboard window, enter a shortcut key combination (I chose ⌘-shift-option-V), click on the Assign button, and then click on OK to begin the recording process.

Choose Replace from the Edit menu and enter ^p in the Find What field. Click on Replace All and then click on Close. A dialog box will appear, asking if you'd like to search the remainder of your text. Click on No and then choose Macro: Stop Recording from the Tools menu. When you next paste a hunk of text that appears as a series of paragraphs, select the text and invoke this macro to strip out the paragraph breaks.

ICONS BY PAUL HOWALT

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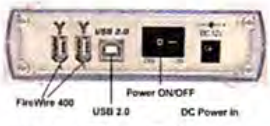
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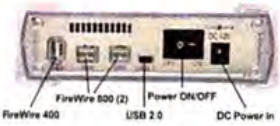


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160GB	7200RPM	8MB	$179.99	$199.99	$209.99
200GB	7200RPM	8MB	$219.99	$239.99	$249.99
250GB	7200RPM	8MB	$229.99	$249.99	$279.99
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* Elite 800 Pro Fw800/400 solution has same ports as pictured FW800/400 + USB model, without the USB 2.0 port.

All Mercury Elite Solutions are Apple HFS+ Preformatted Ready to go and include: Dantz Retrospect, Express Backup Utility(Mac/PC), Intech HD Speedtools(Mac), all cables, and a 2 Year OWC Warranty.



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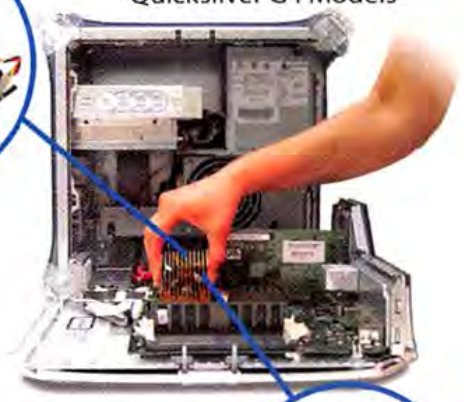












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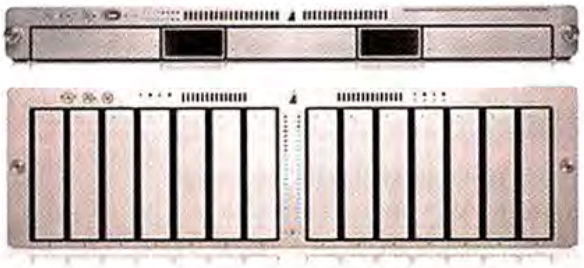


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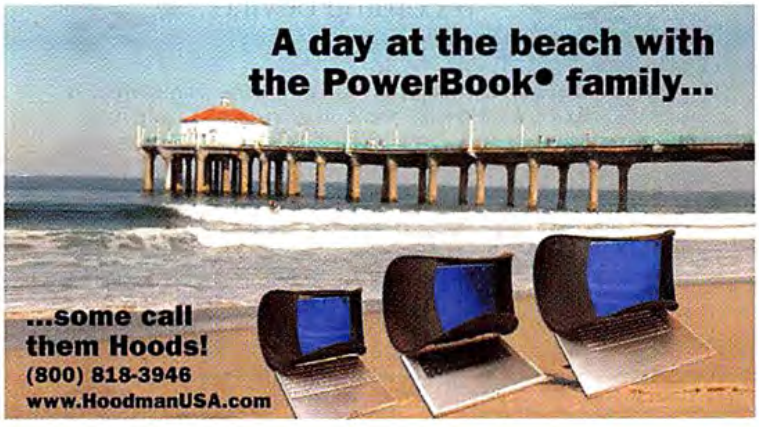
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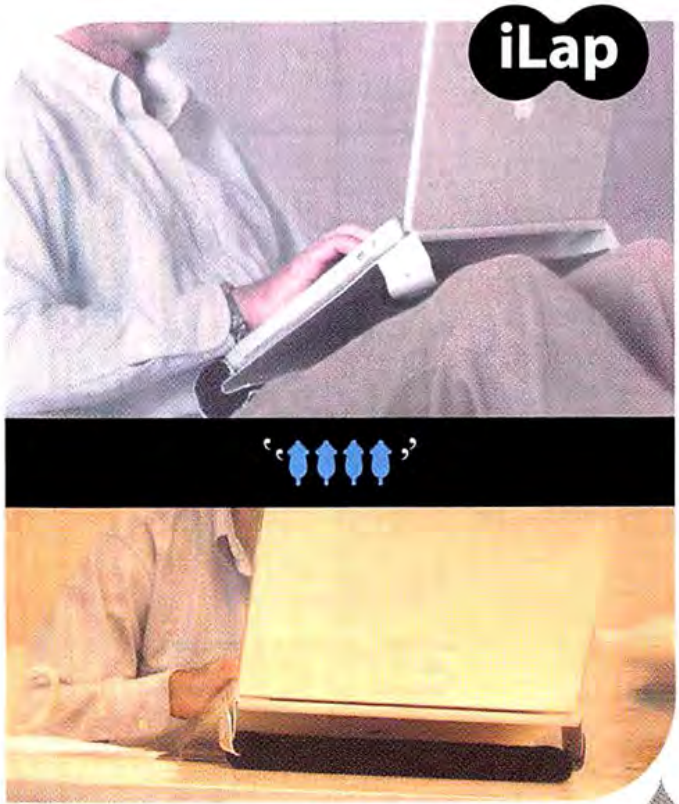
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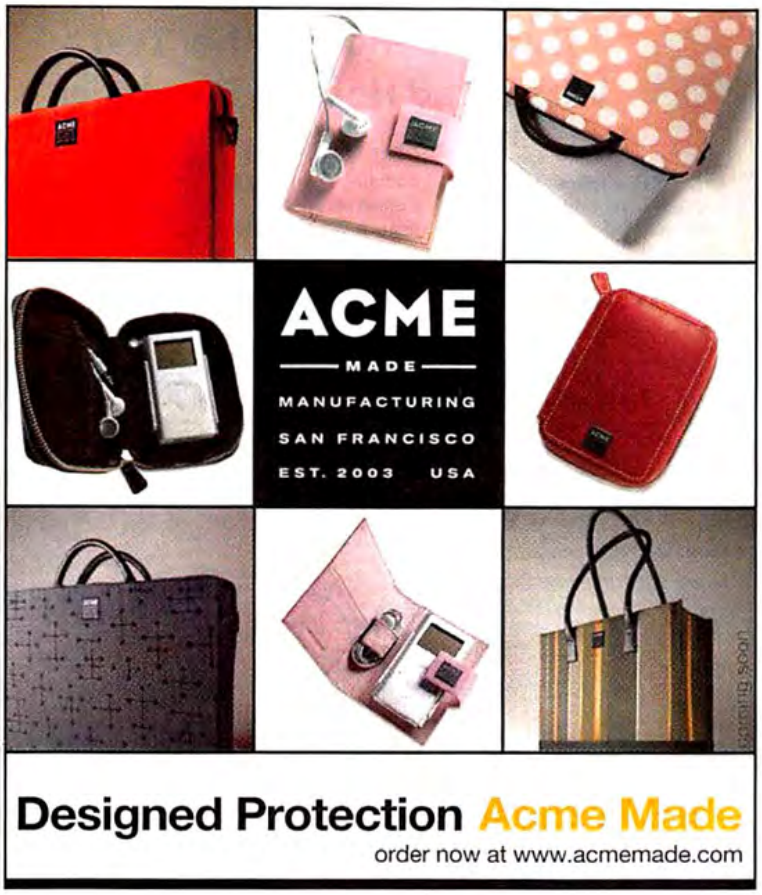
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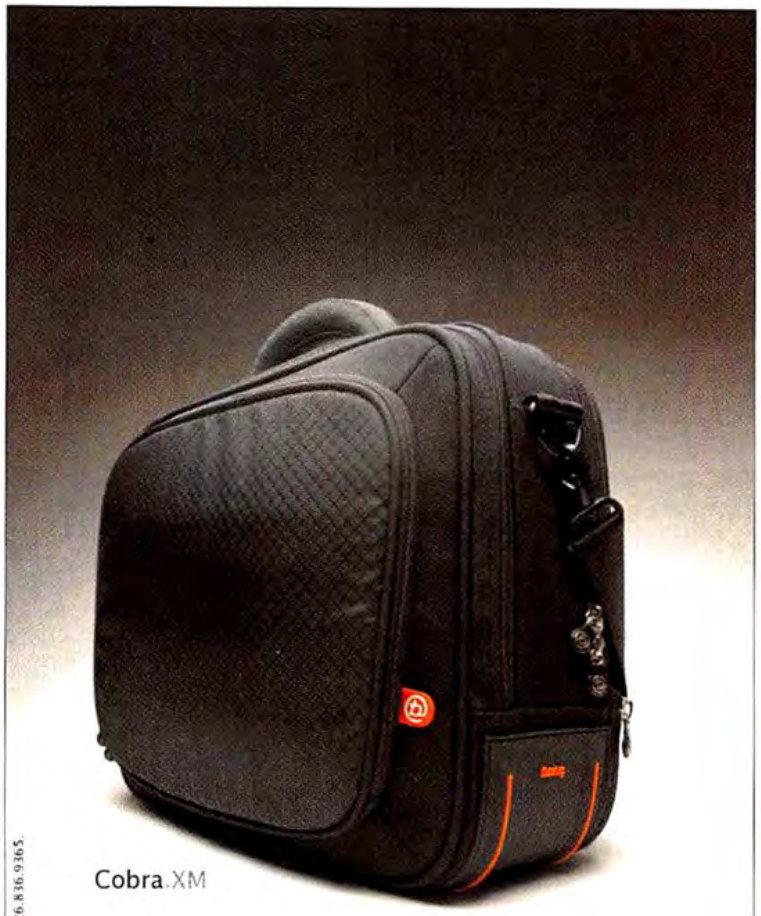


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Alias SketchBook Pro.....**$85**
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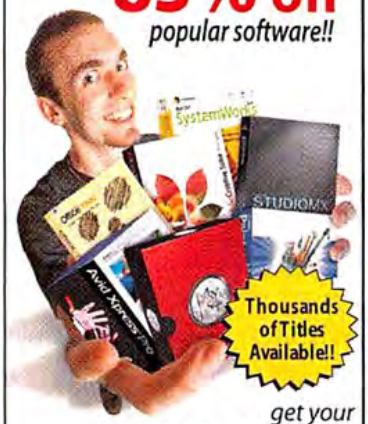
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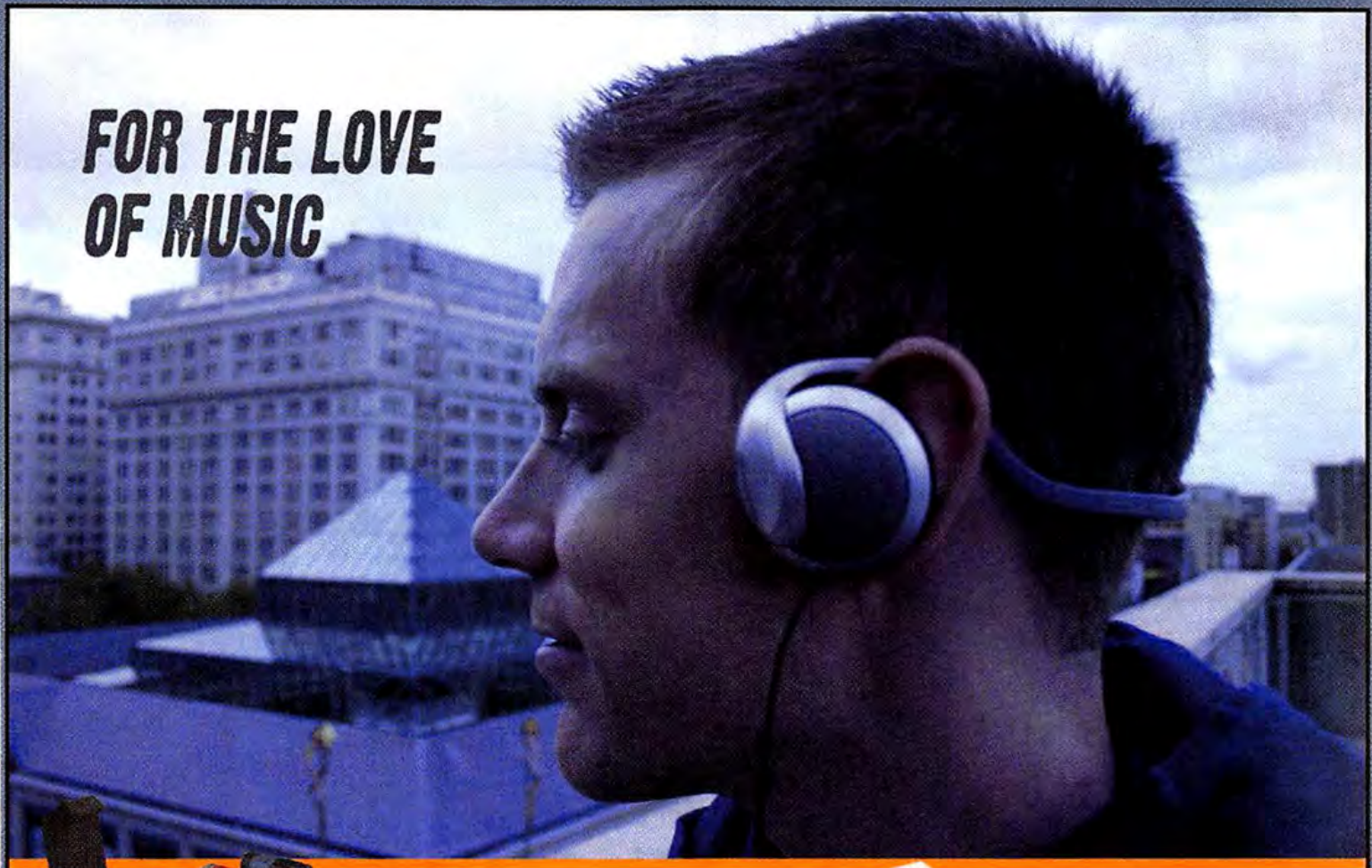
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Two cases. One to hold the iPod securely, the other to store multiple iPod accessories in built-in compartments.

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PodWave
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TRANSIT

If your Mac is the center of your entertainment world, M-Audio's $100 Transit can make that world rock a bit more. Transit is a portable 24-bit, 96kHz audio interface for connecting your DAT or Minidisc player to your Mac, routing DVD Player's sound to 5.1-channel multimedia speaker systems, and listening to music through speakers or headphones with better quality than you'd get from connecting either piece of hardware directly to your computer (www.m-audio.com).—JONATHAN SEFF

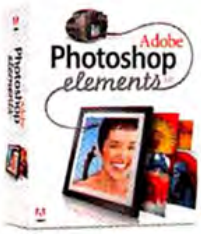
The Cult of Mac

In his $40 book *The Cult of Mac* (No Starch Press, 2004), Leander Kahney shows the best—and the most-frightening—aspects of our devotion to the computer Apple has offered us since 1984. Homemade Dock window stickers, MacQuariums, wild hardware hacks, jack-o'-lanterns of Steve Jobs and switcher Ellen Feiss, Apple-inspired tattoos, and the iBong—it's all here (www.nostarch.com).—JONATHAN SEFF



Photoshop Elements 3.0's Improved Red-Eye Tool

Demonic possession aside, that red gleam in your photo subject's eyes is likely the result of your camera's flash. The $90 Adobe Photoshop Elements 3.0 makes red-eye removal very easy. Just click anywhere near the offending color, and the program replaces glowing red—and only red—with natural black. The previous version made you painstakingly paint over the red while trying to avoid stripping color from the other parts of the eye—so you can see why I like this big improvement (www.adobe.com).—KELLY LUNSFORD



WHAT'S HOT

Brought to you by John Moltz of the Crazy Apple Rumors Site (www.crazyapplerumors.com)

1. **Apple ships iPod Socks.** *In related news, the company has discontinued its open-bar policy at product-design meetings.*
2. **Firefox 1.0 is released, featuring live bookmarks and customizable searching.** *In response, Microsoft announced a huge update to Internet Explorer for the Mac . . . nah, I'm just kidding. They didn't do anything.*
3. **Creative Technology CEO declares a marketing "war" against the iPod.** *Authorities became suspicious when the company kicked UN inspectors out of its Singapore and Milpitas, California, compounds.*
4. **Apple's stock climbs to $67 a share.** *For those of you keeping score at home, the company is now worth 5.46 billion iPod Socks.*

OS X NAMED MOST SECURE

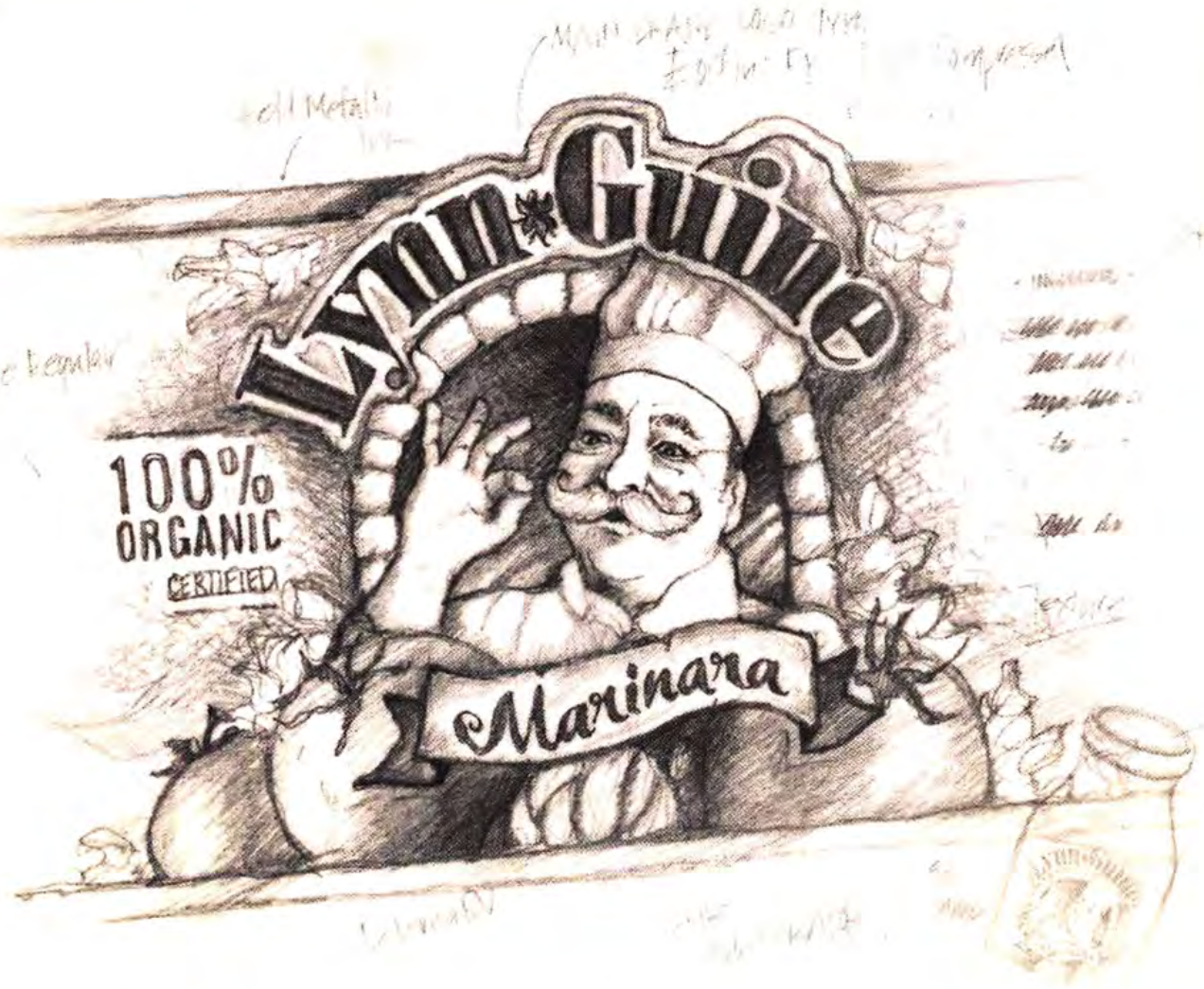
We all know it in our hearts, but now it's slightly more official. London-based mi2g recently released a report that says Mac OS X and BSD Unix are the "world's safest and most secure 24-7 online computing environments." Linux offers the worst track record, the report says, with Windows coming in second. While tested Linux systems accounted for more than 65 percent of successful break-ins, OS X– and BSD-based computer break-in attempts were successful less than 5 percent of the time (www.mi2g.com).—PETER COHEN

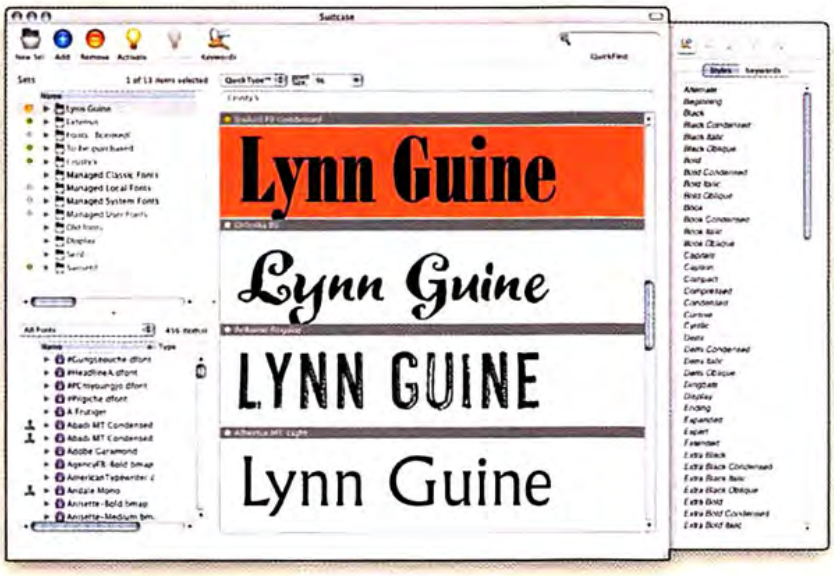




ALTEC LANSING XT1

Altec Lansing's new $130 XT1 speaker system provides portable sound that's far superior to what your laptop can normally pump out—it's a welcome accessory for people (me, for instance) who don't like to go anywhere without tunes. Its USB cable gets both power and audio from your computer, an auxiliary input jack lets you connect an iPod or another audio source, and the whole system packs into the included hard-shell case for travel (www.alteclansing.com).—DAN FRAKES





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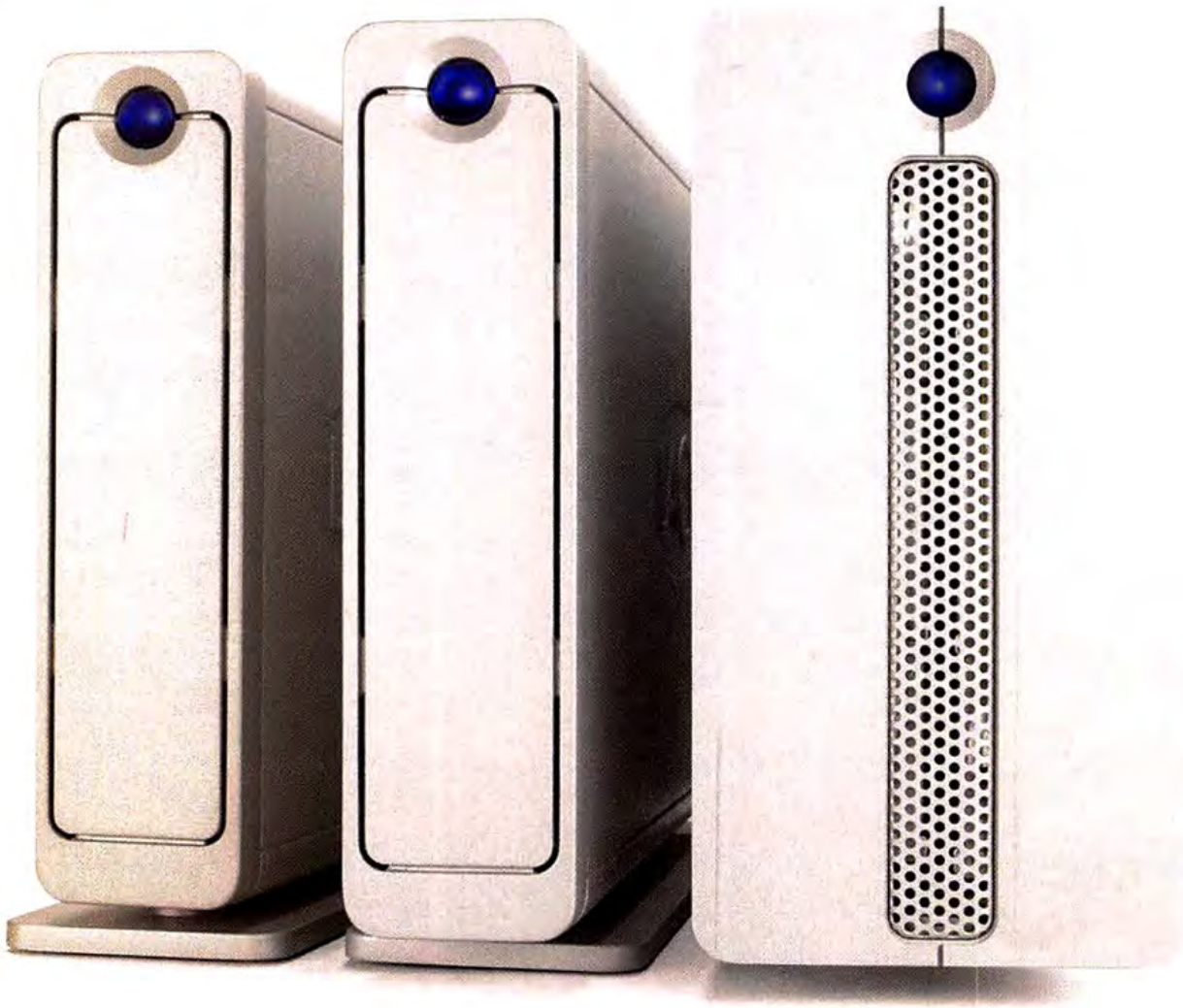
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